

**County of Orange  
Health Care Agency**

**Orange County Mortality Data, 1998**



**September 2001**

*Prepared by:*

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## COUNTY OF ORANGE HEALTH CARE AGENCY

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To our colleagues in public health,

We are pleased to announce the availability of our statistical report, "Orange County Mortality, 1998." This information is compiled from death certificates filed with the Birth and Death Registration Office of the County of Orange Health Care Agency, and is presented in a format similar to others previously published in what has become an annual series.

The information presented in this report can be considered to be the official data for 1998. Unless otherwise noted, reference is made to deaths to *Orange County residents*, regardless of where the death occurred. Similarly, deaths occurring within the county, but to residents of other jurisdictions, are *not* counted in this report. (The process of removing the records of persons and events outside the county, so that the data pertain only to county residents, is under the auspices of the State Department of Health Services Office of Vital Records, and accounts for the two-year lag in the release of official reports.)

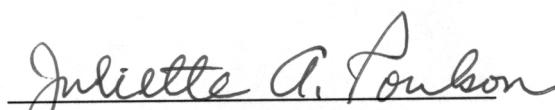
The report is available at the Communicable Disease Control and Epidemiology web site:  
<http://www.oc.ca.gov/hca/public/cdcestat.htm>.

Thank you for your interest in this special report. We encourage you to make other interested colleagues aware of its publication. If you'd like more information, please call Communicable Disease Control and Epidemiology at (714) 834-8024.

Sincerely,



Mark B. Horton, MD, MSPH  
Deputy Agency Director/Health Officer  
Public Health Services



Juliette A. Poulson, RN, MN  
Agency Director

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## Highlights

### **Crude death rate**

There were 15,973 deaths among Orange County residents in 1998, up slightly from 15,961 in 1997. The crude death rate was 577.9 per 100,000 in 1998, a decrease of 3.1% from 1997 (596.1).

### **10 leading causes, change from previous year**

The only change in the categories and ranking of the 10 leading causes of death from 1997 to 1998 was a switch between the 9<sup>th</sup> and 10<sup>th</sup> causes. Of the 10 leading causes in 1998, there were decreases in the crude rate from 1997 in 5 and increases in 5 (see table).

Cause	1998 rank	1997 rank	Change in rate from 1997 to 1998	1998 rate*	1997 rate*
<i>Diseases of the heart</i>	1	1	↓	184.0	192.6
<i>Malignant neoplasms</i>	2	2	↓	137.8	143.9
<i>Cerebrovascular diseases</i>	3	3	↑	43.2	42.8
<i>Pneumonia and influenza</i>	4	4	↑	37.2	33.5
<i>Chronic obstructive pulmonary diseases</i>	5	5	↑	32.5	31.9
<i>Accidents and adverse effects</i>	6	6	↓	19.3	22.3
<i>Diabetes mellitus</i>	7	7	↑	12.4	12.3
<i>Suicide</i>	8	8	↓	8.2	8.8
<i>Atherosclerosis</i>	9	10	↑	7.9	7.6
<i>Chronic liver disease and cirrhosis</i>	10	9	↓	7.5	8.7

\*Rate per 100,000 population.

*Diseases of the heart* remained the leading cause, accounting for 5,085 (31.8%) deaths.

*Malignant neoplasms*, ranked second with 3,809 deaths (23.8%). Lung cancer accounted for the largest share, 26.3% (1,001 deaths) of *Malignant neoplasms*, followed by colon cancer with 9.7% (371 deaths). The crude rate of lung cancer declined from 38.7 per 100,000 in 1997 to 36.5 per 100,000 in 1998. Breast cancer among women increased from 304 to 326 deaths from 1997 to 1998. The crude rate for female breast cancer increased from 23.0 in 1997 to 24.0 per 100,000 in 1998.

The increase in *Pneumonia and influenza* deaths from 1997 to 1998 may have been, at least in part, a reflection of the influenza season of 1997-98, when a new influenza variant (A/Sydney) circulated that was not well matched to that year's vaccine. The influenza season appeared to peak in early January of 1998.

The largest drop in crude rate from 1997 to 1998, a decrease of 13.5%, occurred in the *Accidents and adverse effects* category. Within that category, *Motor vehicle accidents* declined from a crude rate of 8.5 to 6.7 per 100,000.

### **Comparison to California and United States 1998 age-adjusted death rates**

The overall age-adjusted death rate for Orange County in 1998 was 369.4 per 100,000. Both the corresponding California (414.7) and United States (471.7) rates were higher.

Among the 15 leading causes of death in Orange County, age-adjusted rates were lower for Orange County than the United States for 11 of the causes:

<b>Cause of death</b>	<b>Orange County rate*</b>	<b>United States rate*</b>
<i>Diseases of the heart</i>	103.2	126.6
<i>Malignant neoplasms</i>	101.6	123.6
<i>Cerebrovascular diseases</i>	23.0	25.1
<i>Chronic obstructive pulmonary diseases</i>	19.7	21.3
<i>Accidents and adverse effects</i>	16.7	30.1
<i>Diabetes mellitus</i>	8.6	13.6
<i>Suicide</i>	7.2	10.4
<i>Chronic liver disease and cirrhosis</i>	6.3	7.2
<i>Congenital anomalies</i>	2.9	4.2
<i>Certain conditions originating in the perinatal period</i>	3.4	5.5
<i>Homicide and legal intervention.</i>	2.6	7.3

\*Age-adjusted rate per 100,000 population

In 4 of the 15 leading causes of death, the age-adjusted Orange County rate was higher than that for the United States:

<b>Cause of death</b>	<b>Orange County rate*</b>	<b>United States rate*</b>
<i>Pneumonia and influenza</i>	17.1	13.2
<i>Atherosclerosis</i>	3.7	1.9
<i>Alzheimer's disease</i>	2.9	2.6
<i>Hypertension with or without renal disease</i>	2.5	2.4

\*Age-adjusted rate per 100,000 population

### **Sex differences**

The ranking of the 1998 leading causes of death for males and females is shown in the following table.

Orange County		Males		Females	
Rank	Cause of death	Rank	Cause of death	Rank	Cause of death
1	<i>Diseases of the heart</i>	1	<i>Diseases of the heart</i>	1	<i>Diseases of the heart</i>
2	<i>Malignant neoplasms</i>	2	<i>Malignant neoplasms</i>	2	<i>Malignant neoplasms</i>
3	<i>Cerebrovascular diseases</i>	3	<i>Cerebrovascular diseases</i>	3	<i>Cerebrovascular diseases</i>
4	<i>Pneumonia and influenza</i>	3	<i>Pneumonia and influenza</i>	4	<i>Pneumonia and influenza</i>
5	<i>Chronic obstructive pulmonary diseases</i>	5	<i>Chronic obstructive pulmonary diseases</i>	5	<i>Chronic obstructive pulmonary diseases</i>
6	<i>Accidents and adverse effects</i>	6	<i>Accidents and adverse effects</i>	6	<i>Diabetes mellitus</i>
7	<i>Diabetes mellitus</i>	7	<i>Suicide</i>	7	<i>Accidents and adverse effects</i>
8	<i>Suicide</i>	8	<i>Diabetes mellitus</i>	8	<i>Atherosclerosis</i>
9	<i>Atherosclerosis</i>	9	<i>Chronic liver disease and cirrhosis</i>	9	<i>Alzheimer's disease</i>
10	<i>Chronic liver disease and cirrhosis</i>	10	<i>Atherosclerosis</i>	10	<i>Chronic liver disease and cirrhosis</i>

### **Leading causes by age**

58.2% of all deaths occurred among those aged 75 years and older.

Among infants less than 1 year of age, the leading cause of death was *Disorders relating to short gestation and low birthweight* (83 deaths), followed by *Congenital anomalies* (64 deaths) and *Sudden infant death syndrome* (14 deaths). Nationally, *Congenital anomalies* was the leading cause of death among infants in 1998.

*Accidents and adverse effects* was the leading cause of death for the age groups 1-4 years, 5-9 years, 10-14 years, 20-24 years, and 25-34 years. For the 15-19 age group, *Homicide and legal intervention* tied with *Accidents and adverse effects* as the leading cause with 21 deaths in each category. *Suicide* first appears as a leading cause in the 15-19 age group, ranking 4<sup>th</sup> with 7 deaths, and remains the 3<sup>rd</sup> or 4<sup>th</sup> leading cause through the 45-54 age group. *Malignant neoplasms* was the leading cause of death for the 35-44, 45-54, 55-64, and 65-74 age groups. For the age groups 75-84 years and 85 and older, *Diseases of the heart* was the leading cause of death.

With the exception of the 5-9 year age group, *Homicide and legal intervention* (ranked 15<sup>th</sup> overall) ranked in the top ten leading causes for all age groups up to age 45.

*HIV infection*, the 17<sup>th</sup> leading cause for all ages, first appeared in the top ten in the 25-34 year age group, where it ranked 6<sup>th</sup> (15 deaths), and remained in the top ten for the 35-44 (5<sup>th</sup>, 31 deaths) and 45-54 (8<sup>th</sup>, 19 deaths) age groups.

### **Leading causes by race/ethnicity**

Whites accounted for 83.0% of all 1998 deaths, Hispanics 9.5%, Southeast Asians 2.2%, Other Asians 4.0%, African Americans 1.1%, and others less than 1%.

*Diseases of the heart, Malignant neoplasms, and Cerebrovascular diseases* were the 3 leading causes of death, in that order, for all race/ethnic groups except Hispanics, for whom *Accidents and adverse effects* ranked 3<sup>rd</sup>, and Southeast Asians, for whom *Malignant neoplasms* ranked 1<sup>st</sup>, followed by *Diseases of the heart* and *Cerebrovascular diseases*.

### **Age-adjusted rates by race/ethnicity**

Age-adjusted rates differed dramatically for many of the leading causes of death. African Americans had the highest death rate due to *Diseases of the heart* (201 per 100,000), followed by Whites (111 per 100,000), Hispanics (73 per 100,000) and Asian & Pacific Islanders (71 per 100,000). Whites had the highest death rate due to *Malignant neoplasms* (109 per 100,000), followed by African Americans (100 per 100,000), Asian & Pacific Islanders (71 per 100,000), and Hispanics (65 per 100,000). There were only small differences in rates of *Cerebrovascular diseases* with the exception of African Americans who had a rate more than twice that of the other groups.

### **Injury mortality**

*Suicide* was the leading cause of injury death in Orange County in 1998 with 228 deaths. *Motor vehicle accidents* was second (184 deaths), followed by *Accidental poisoning* (156 deaths), *Accidental falls* (102 deaths), and *Homicide* (86 deaths). There were 20 *Accidental drownings*; 5 of these were in children aged 1-4 years.

Firearms were involved in 176 deaths: 109 suicides, 62 homicides, 4 unintentional deaths, and 1 death for which intent could not be determined. Firearms were used in 47.8% of suicides and 65.3% of homicides.

**Ten Leading Causes of Death by Age Groups  
Orange County, 1998 (Resident Deaths)**

All ages (all races, both sexes)		Rate	
<u>Rank</u>	<u>Cause of Death (ICD9 codes)</u>	<u>No.</u>	<u>per 100,000 pop.</u>
1	<i>Diseases of the heart</i> (390-398, 402, 404-429).....	5,085	184.0
2	<i>Malignant neoplasms, incl. lymphatic and hematopoietic tissues</i> (140-208)...	3,809	137.8
3	<i>Cerebrovascular diseases</i> (430-438).....	1,193	43.2
4	<i>Pneumonia and influenza</i> (480-487) .....	1,028	37.2
5	<i>Chronic obstructive pulmonary diseases and allied conditions</i> (490-496) .....	899	32.5
6	<i>Accidents and adverse effects</i> (E800-E949).....	533	19.3
-	Motor vehicle accidents (E810-E825) .....	184	6.7
-	All other accidents and adverse effects (E800-E807, E826-E949) .....	349	12.6
7	<i>Diabetes mellitus</i> (250) .....	344	12.4
8	<i>Suicide</i> (E950-E959) .....	228	8.2
9	<i>Atherosclerosis</i> (440).....	217	7.9
10	<i>Chronic liver disease and cirrhosis</i> (571).....	208	7.5
-	<i>All others</i> .....	<u>2,429</u>	<u>87.9</u>
<b>Total</b> .....		<b><u>15,973</u></b>	<b><u>577.9</u></b>

**Ten Leading Causes of Death by Age Groups\***  
**Orange County, 1998 (Resident Deaths)**

under one year of age (all races, both sexes)		Rate**	
<u>Rank</u>	<u>Cause of Death (ICD9 codes)</u>	<u>No.</u>	<u>age-specif. per 100,000 pop.</u>
1	<i>Disorders relating to short gest. &amp; unspec. low birthweight</i> (765)	83	178.3
2	<i>Congenital anomalies</i> (740-759) .....	64	137.5
3	<i>Sudden infant death syndrome</i> (798.0).....	14	30.1
4	<i>Respiratory distress syndrome</i> (769).....	4	--
5	<i>Newborn affected by complic. of placenta, cord, &amp; membranes</i> (762).....	3	--
6	<i>Pneumonia and influenza</i> (480-487).....	2	--
6	<i>Accidents and adverse effects</i> (E800-E949).....	2	--
6	<i>Newborn affected by maternal complications of pregnancy</i> (761).....	2	--
6	<i>Homicide</i> (E960-E969).....	2	--
-	<i>Gastritis, duodenitis, &amp; noninfective enteritis &amp; colitis</i> (535, 555-558).....	2	--
-	<i>All others</i> .....	<u>29</u>	<u>62.3</u>
<b>Total</b> .....		<b><u>207</u></b>	<b><u>444.7</u></b>

-- Rate not calculated for deaths fewer than five

\* Infant deaths are based on the federal list of 61 selected causes

\*\* These are infant death (not mortality) rates; they are based on 100,000 population in this age group (see page 37)

**Ten Leading Causes of Death by Age Groups  
Orange County, 1998 (Resident Deaths)**

***1-4 years of age (all races, both sexes)***

<u>Rank</u>	<u>Cause of Death (ICD9 codes)</u>	<u>No.</u>	<i>Rate</i>
			<i>age-specif. per 100,000 pop.</i>
1	<b><i>Accidents and adverse effects (E800-E949) .....</i></b>	<b>12</b>	<b>6.1</b>
-	Motor vehicle accidents (E810-E825) .....	4	--
-	All other accidents and adverse effects (E800-E807, E826-E949) .....	8	4.1
2	<b><i>Congenital anomalies (740-759)....</i></b>	<b>7</b>	<b>3.6</b>
3	<b><i>Pneumonia and influenza (480-487) .....</i></b>	<b>5</b>	<b>2.5</b>
4	<b><i>Homicide and legal intervention (E960-E978) .....</i></b>	<b>4</b>	--
5	<b><i>Malignant neoplasms, incl. lymphatic &amp; hematop. tissues (140-208) .....</i></b>	<b>3</b>	--
6	<b><i>Diseases of heart (390-398, 402, 404-429).....</i></b>	<b>2</b>	--
7	<b><i>Chronic obstructive pulmonary diseases and allied conditions (490-496) .....</i></b>	<b>1</b>	--
-	All others .....	<u>9</u>	4.6
	<b>Total .....</b>	<b><u>43</u></b>	<b>21.8</b>

**Ten Leading Causes of Death by Age Groups  
Orange County, 1998 (Resident Deaths)**

***5 to 9 years of age (all races, both sexes)***

<u>Rank</u>	<u>Cause of Death (ICD9 codes)</u>	<u>No.</u>	<i>Rate</i>
			<i>age-specif. per 100,000 pop.</i>
1	<b><i>Accidents and adverse effects (E800-E949) .....</i></b>	<b>12</b>	<b>5.0</b>
-	Motor vehicle accidents (E810-E825) .....	6	2.5
-	All other accidents and adverse effects (E800-E807, E826-E949) .....	6	2.5
2	<b><i>Congenital anomalies (740-759).....</i></b>	<b>3</b>	--
3	<b><i>Malignant neoplasms, incl. lymphatic &amp; hematop. tissues (140-208) .....</i></b>	<b>1</b>	--
3	<b><i>Meningitis (320-322).....</i></b>	<b>1</b>	--
3	<b><i>Chronic liver disease and cirrhosis (571) .....</i></b>	<b>1</b>	--
-	All others .....	<u>3</u>	--
	<b>Total .....</b>	<b><u>21</u></b>	<b>8.7</b>

-- Rate not calculated for deaths fewer than five

**Ten Leading Causes of Death by Age Groups**  
**Orange County, 1998 (Resident Deaths)**

**10 to 14 years of age (all races, both sexes)**

<b>Rank</b>	<b>Cause of Death (ICD9 codes)</b>	<b>No.</b>	<b>Rate age-specif.</b>	
			<b>per 100,000 pop.</b>	
1	<i>Accidents and adverse effects (E800-E949) .....</i>	9	5.0	
-	Motor vehicle accidents (E810-E825) .....	6	3.3	
-	All other accidents and adverse effects (E800-E807, E826-E949) .....	3	1.7	
2	<i>Malignant neoplasms, incl. lymphatic and hematopoietic tissues (140-208)...</i>	6	3.3	
3	<i>Congenital anomalies (740-759) .....</i>	3	--	
4	<i>Homicide and legal intervention (E960-E978) .....</i>	2	--	
4	<i>Meningococcal infection (036) .....</i>	2	--	
6	<i>Hernia of abd. cavity and intestinal obstr. w/out hernia (550-553, 560) .....</i>	1	--	
-	All others .....	8	4.4	
	<b>Total .....</b>	<b>31</b>	<b>17.1</b>	

**Ten Leading Causes of Death by Age Groups**  
**Orange County, 1998 (Resident Deaths)**

**15 to 19 years of age (all races, both sexes)**

<b>Rank</b>	<b>Cause of Death (ICD9 codes)</b>	<b>No.</b>	<b>Rate age-specif.</b>	
			<b>per 100,000 pop.</b>	
1	<i>Homicide and legal intervention (E960-E978)...</i>	21	12.6	
1	<i>Accidents and adverse effects (E800-E949) .....</i>	21	12.6	
-	Motor vehicle accidents (E810-E825) .....	16	9.6	
-	All other accidents and adverse effects (E800-E807, E826-E949) .....	5	3.0	
3	<i>Malignant neoplasms, incl. lymphatic and hematopoietic tissues (140-208)....</i>	9	5.4	
4	<i>Suicide (E950-E959) .....</i>	7	4.2	
5	<i>Congenital anomalies (740-759)...</i>	4	--	
6	<i>Diabetes mellitus (250) .....</i>	1	--	
6	<i>Diseases of heart (390-398, 402, 404-429).....</i>	1	--	
-	All others .....	5	3.0	
	<b>Total .....</b>	<b>69</b>	<b>41.6</b>	

-- Rate not calculated for deaths fewer than five

**Ten Leading Causes of Death by Age Groups**  
**Orange County, 1998 (Resident Deaths)**  
**20 to 24 years of age (all races, both sexes)**

<u>Rank</u>	<u>Cause of Death (ICD9 codes)</u>	<u>No.</u>	<i>Rate</i>
			<i>age-specif. per 100,000 pop.</i>
1	<b>Accidents and adverse effects (E800-E949) .....</b>	<b>40</b>	<b>24.9</b>
-	Motor vehicle accidents (E810-E825) .....	24	14.9
-	All other accidents and adverse effects (E800-E807, E826-E949) .....	16	9.9
2	<b>Homicide and legal intervention (E960-E978) .....</b>	<b>22</b>	<b>13.7</b>
3	<b>Suicide (E950-E959) .....</b>	<b>15</b>	<b>9.3</b>
4	<b>Malignant neoplasms, incl. lymphatic and hematopoietic tissues (140-208)...</b>	<b>13</b>	<b>8.1</b>
5	<b>Diseases of heart (390-398, 402, 404-429).....</b>	<b>3</b>	--
6	<b>Congenital anomalies (740-759) .....</b>	<b>1</b>	--
6	<b>Nephritis, nephrotic syndrome, and nephrosis (580-589) .....</b>	<b>1</b>	--
-	<b>All others .....</b>	<b>16</b>	<b>9.9</b>
	<b>Total .....</b>	<b>111</b>	<b>69.0</b>

**Ten Leading Causes of Death by Age Groups**  
**Orange County, 1998 (Resident Deaths)**  
**25 to 34 years of age (all races, both sexes)**

<u>Rank</u>	<u>Cause of Death (ICD9 codes)</u>	<u>No.</u>	<i>Rate</i>
			<i>age-specif. per 100,000 pop.</i>
1	<b>Accidents and adverse effects (E800-E949) .....</b>	<b>69</b>	<b>15.0</b>
-	Motor vehicle accidents (E810-E825) .....	31	6.7
-	All other accidents and adverse effects (E800-E807, E826-E949) .....	38	8.3
2	<b>Malignant neoplasms, incl. lymphatic and hematopoietic tissues (140-208)...</b>	<b>54</b>	<b>11.7</b>
3	<b>Suicide (E950-E959) .....</b>	<b>37</b>	<b>8.0</b>
4	<b>Homicide and legal intervention (E960-E978) .....</b>	<b>22</b>	<b>4.8</b>
5	<b>Diseases of heart (390-398, 402, 404-429).....</b>	<b>20</b>	<b>4.3</b>
6	<b>HIV infection (042-044) .....</b>	<b>15</b>	<b>3.3</b>
7	<b>Chronic liver disease and cirrhosis (571) .....</b>	<b>8</b>	<b>1.7</b>
8	<b>Congenital anomalies (740-759) .....</b>	<b>7</b>	<b>1.5</b>
9	<b>Cerebrovascular diseases (430-438) .....</b>	<b>6</b>	<b>1.3</b>
10	<b>Chronic obstructive pulmonary diseases and allied conditions (490-496)....</b>	<b>5</b>	<b>1.1</b>
-	<b>All others .....</b>	<b>43</b>	<b>9.3</b>
	<b>Total .....</b>	<b>286</b>	<b>62.2</b>

-- Rate not calculated for deaths fewer than five

## Ten Leading Causes of Death by Age Groups

**Orange County, 1998 (Resident Deaths)**

**35 to 44 years of age (all races, both sexes)**

<u>Rank</u>	<u>Cause of Death (ICD9 codes)</u>	<u>No.</u>	<i>Rate age-specif. per 100,000 pop.</i>
1	<i>Malignant neoplasms, incl. lymphatic and hematopoietic tissues (140-208)...</i>	140	29.7
2	<i>Accidents and adverse effects (E800-E949).....</i>	116	24.6
-	Motor vehicle accidents (E810-E825) .....	24	5.1
-	All other accidents and adverse effects (E800-E807, E826-E949) .....	92	19.5
3	<i>Diseases of heart (390-398, 402, 404-429).....</i>	89	18.9
4	<i>Suicide (E950-E959).....</i>	53	11.2
5	<i>HIV infection (042-044).....</i>	31	6.6
6	<i>Chronic liver disease and cirrhosis (571).....</i>	29	6.1
7	<i>Cerebrovascular diseases (430-438).....</i>	21	4.4
8	<i>Diabetes mellitus (250).....</i>	10	2.1
8	<i>Homicide and legal intervention (E960-E978).....</i>	10	2.1
8	<i>Chronic obstructive pulmonary diseases and allied conditions (490-496)....</i>	10	2.1
-	All others .....	78	16.5
	<b>Total .....</b>	<b>587</b>	<b>124.3</b>

## Ten Leading Causes of Death by Age Groups

**Orange County, 1998 (Resident Deaths)**

**45 to 54 years of age (all races, both sexes)**

<u>Rank</u>	<u>Cause of Death (ICD9 codes)</u>	<u>No.</u>	<i>Rate age-specif. per 100,000 pop.</i>
1	<i>Malignant neoplasms, incl. lymphatic and hematopoietic tissues (140-208)...</i>	332	94.6
2	<i>Diseases of heart (390-398, 402, 404-429).....</i>	214	61.0
3	<i>Accidents and adverse effects (E800-E949).....</i>	70	19.9
-	Motor vehicle accidents (E810-E825) .....	22	6.3
-	All other accidents and adverse effects (E800-E807, E826-E949) .....	48	13.7
4	<i>Suicide (E950-E959).....</i>	40	11.4
5	<i>Cerebrovascular diseases (430-438).....</i>	36	10.3
6	<i>Chronic liver disease and cirrhosis (571).....</i>	31	8.8
7	<i>Diabetes mellitus (250)....</i>	28	8.0
8	<i>HIV infection (042-044)....</i>	19	5.4
9	<i>Chronic obstructive pulmonary diseases and allied conditions (490-496).....</i>	14	4.0
10	<i>Pneumonia and influenza (480-487)....</i>	11	3.1
-	All others .....	122	34.8
	<b>Total .....</b>	<b>917</b>	<b>261.3</b>

**Ten Leading Causes of Death by Age Groups**  
**Orange County, 1998 (Resident Deaths)**

**55 to 64 years of age (all races, both sexes)**

<u>Rank</u>	<u>Cause of Death (ICD9 codes)</u>	<u>No.</u>	<i>Rate age-specif. per 100,000 pop.</i>
1	<i>Malignant neoplasms, incl. lymphatic and hematopoietic tissues</i> (140-208)....	627	279.8
2	<i>Diseases of heart</i> (390-398, 402, 404-429).....	368	164.2
3	<i>Chronic obstructive pulmonary diseases and allied conditions</i> (490-496) .....	68	30.3
4	<i>Cerebrovascular diseases</i> (430-438) .....	62	27.7
5	<i>Accidents and adverse effects</i> (E800-E949) .....	55	24.5
-	Motor vehicle accidents (E810-E825) .....	24	10.7
-	All other accidents and adverse effects (E800-E807, E826-E949) .....	31	13.8
6	<i>Diabetes mellitus</i> (250) .....	52	23.2
7	<i>Chronic liver disease and cirrhosis</i> (571).....	47	21.0
8	<i>Pneumonia and influenza</i> (480-487) .....	27	12.0
9	<i>Suicide</i> (E950-E959) .....	20	8.9
10	<i>Viral hepatitis</i> (070) .....	14	6.2
-	<b>All others</b> .....	<b>164</b>	73.2
<b>Total</b> .....		<b>1,504</b>	<b>671.2</b>

**Ten Leading Causes of Death by Age Groups**  
**Orange County, 1998 (Resident Deaths)**

**65 to 74 years of age (all races, both sexes)**

<u>Rank</u>	<u>Cause of Death (ICD9 codes)</u>	<u>No.</u>	<i>Rate age-specif. per 100,000 pop.</i>
1	<i>Malignant neoplasms, incl. lymphatic and hematopoietic tissues</i> (140-208)...	1,007	663.9
2	<i>Diseases of heart</i> (390-398, 402, 404-429).....	857	565.0
3	<i>Chronic obstructive pulmonary diseases and allied conditions</i> (490-496) .....	220	145.0
4	<i>Cerebrovascular diseases</i> (430-438) .....	172	113.4
5	<i>Pneumonia and influenza</i> (480-487) .....	99	65.3
6	<i>Diabetes mellitus</i> (250).....	83	54.7
7	<i>Chronic liver disease and cirrhosis</i> (571).....	51	33.6
8	<i>Accidents and adverse effects</i> (E800-E949) .....	44	29.0
-	Motor vehicle accidents (E810-E825) .....	14	9.2
-	All other accidents and adverse effects (E800-E807, E826-E949) .....	30	19.8
9	<i>Hypertension with or without renal disease</i> (401, 403) .....	28	18.5
10	<i>Alzheimer's disease</i> (331.0).....	20	13.2
10	<i>Atherosclerosis</i> (440).....	20	13.2
-	<b>All others</b> .....	<b>307</b>	202.4
<b>Total</b> .....		<b>2,908</b>	<b>1,917.3</b>

**Ten Leading Causes of Death by Age Groups**  
**Orange County, 1998 (Resident Deaths)**  
**75 to 84 years of age (all races, both sexes)**

<u>Rank</u>	<u>Cause of Death (ICD9 codes)</u>	<u>No.</u>	<i>Rate age-specif. per 100,000 pop.</i>
1	<i>Diseases of heart</i> (390-398, 402, 404-429).....	1,626	1,944.7
2	<i>Malignant neoplasms, incl. lymphatic and hematopoietic tissues</i> (140-208)....	1,140	1,363.4
3	<i>Cerebrovascular diseases</i> (430-438).....	410	490.3
4	<i>Chronic obstructive pulmonary diseases and allied conditions</i> (490-496)....	344	411.4
5	<i>Pneumonia and influenza</i> (480-487) .....	341	407.8
6	<i>Diabetes mellitus</i> (250).....	122	145.9
7	<i>Alzheimer's disease</i> (331.0) .....	72	86.1
7	<i>Atherosclerosis</i> (440).....	72	86.1
9	<i>Accidents and adverse effects</i> (E800-E949) .....	48	57.4
-	Motor vehicle accidents (E810-E825) .....	10	12.0
-	All other accidents and adverse effects (E800-E807, E826-E949) .....	38	45.4
10	<i>Chronic liver disease and cirrhosis</i> (571).....	36	43.1
-	<b>All others</b> .....	<b>580</b>	<b>693.7</b>
	<b>Total</b> .....	<b>4,791</b>	<b>5,729.9</b>

**Ten Leading Causes of Death by Age Groups**  
**Orange County, 1998 (Resident Deaths)**  
**85 years of age & over (all races, both sexes)**

<u>Rank</u>	<u>Cause of Death (ICD9 codes)</u>	<u>No.</u>	<i>Rate age-specif. per 100,000 pop.</i>
1	<i>Diseases of heart</i> (390-398, 402, 404-429).....	1,900	6,861.9
2	<i>Pneumonia and influenza</i> (480-487)....	537	1,939.4
3	<i>Cerebrovascular diseases</i> (430-438).....	483	1,744.4
4	<i>Malignant neoplasms, incl. lymphatic and hematopoietic tissues</i> (140-208)...	476	1,719.1
5	<i>Chronic obstructive pulmonary diseases and allied conditions</i> (490-496)....	236	852.3
6	<i>Atherosclerosis</i> (440).....	114	411.7
7	<i>Alzheimer's disease</i> (331.0) .....	81	292.5
8	<i>Hypertension with or without renal disease</i> (401, 403) .....	51	184.2
9	<i>Diabetes mellitus</i> (250)....	45	162.5
10	<i>Accidents and adverse effects</i> (E800-E949) .....	35	126.4
-	Motor vehicle accidents (E810-E825) .....	2	7.2
-	All other accidents and adverse effects (E800-E807, E826-E949) .....	33	119.2
-	<b>All others</b> .....	<b>540</b>	<b>1,950.2</b>
	<b>Total</b> .....	<b>4,498</b>	<b>16,244.7</b>

**A comparison of Orange County, California, and US  
age-adjusted death rates for 15 leading causes of death (OC), 1998**

	OC	CA	US
<i>Diseases of heart</i> (390-398, 402, 404-429).....	<b>104.2</b>	109.8	126.6
<i>Malignant neoplasms, incl. lymphatic and hematop. tissues</i> (140-208) ....	<b>101.8</b>	107.4	123.6
<i>Cerebrovascular diseases</i> (430-438) .....	<b>23.2</b>	24.5	25.1
<i>Pneumonia and influenza</i> (480-487)....	<b>17.3</b>	17.5	19.2
<i>Chronic obstructive pulmonary diseases and allied conditions</i> (490-496) .	<b>19.9</b>	21.2	21.3
<i>Accidents and adverse effects</i> (E800-E949).....	<b>17.6</b>	22.9	30.1
Motor vehicle accidents (E810-E825) .....	6.9	N/A	15.6
All other accidents and adverse effects (E800-E807, E826-E949) .....	10.7	N/A	14.4
<i>Diabetes mellitus</i> (250) .....	<b>8.9</b>	11.6	13.6
<i>Suicide</i> (E950-E959)....	<b>7.2</b>	8.9	10.4
<i>Atherosclerosis</i> (440).....	<b>3.7</b>	N/A	1.9
<i>Chronic liver disease and cirrhosis</i> (571).....	<b>6.3</b>	8.9	7.2
<i>Alzheimer's disease</i> (331.0) .....	<b>3.0</b>	N/A	2.6
<i>Hypertension with or without renal disease</i> (401, 403).....	<b>2.5</b>	N/A	2.4
<i>Congenital anomalies</i> (740-759)....	<b>3.7</b>	N/A	4.2
<i>Certain conditions originating in the perinatal period</i> (760-779) .....	<b>3.4</b>	N/A	5.5
<i>Homicide and legal intervention</i> (E960-E978)....	<b>4.1</b>	7.5	1.3
<i>All causes</i> .....	<b>369.4</b>	414.7	471.7

## Cause of Death by Rank

### Orange County, 1998, Selected Causes (Resident Deaths)

Rank			Cause of Death (ICD9 code)	No. of Deaths			Rate--		
Both	Male	Fem.		Both sexes	Male	Fem.	Both sexes	Male	Fem.
<b>1</b>	<b>1</b>	<b>1</b>	<b>Diseases of heart (390-398, 402, 404-429).....</b>	<b>5,085</b>	<b>2,496</b>	<b>2,589</b>	<b>184.0</b>	<b>178.7</b>	<b>189.4</b>
-	-	-	Rheumatic fever and rheumatic heart disease (390-398) .....	29	8	21	1.0	0.6	1.5
-	-	-	Hypertensive heart disease (402) .....	213	81	132	7.7	5.8	9.7
-	-	-	Hypertensive heart and renal disease (404) .....	3	2	1	--	--	--
-	-	-	Ischemic heart disease (410-414) .....	3,660	1,833	1,827	132.4	131.2	133.7
-	-	-	Acute myocardial infarction (410) .....	1,444	757	687	52.2	54.2	50.3
-	-	-	Other acute and subacute forms of ischemic heart disease (411) .....	4	2	2	--	--	--
-	-	-	Angina pectoris (413) .....	2	1	1	--	--	--
-	-	-	Old myocardial infarction, and other chronic ischemic heart disease (412, 414) .....	2,210	1,073	1,137	80.0	76.8	83.2
-	-	-	Other diseases of endocardium (424) .....	97	41	56	3.5	2.9	4.1
-	-	-	All other forms of heart disease (415-423, 425-429) .....	1,083	531	552	39.2	38.0	40.4
<b>2</b>	<b>2</b>	<b>2</b>	<b>Malignant neoplasms, incl. lymphatic and hematopoietic tissues (140-208).....</b>	<b>3,809</b>	<b>1,891</b>	<b>1,918</b>	<b>137.8</b>	<b>135.4</b>	<b>140.3</b>
-	-	-	Malignant neoplasms of lip, oral cavity, and pharynx (140-149).....	54	32	22	2.0	2.3	1.6
-	-	-	Malignant neoplasms of digestive organs and peritoneum (150-159).....	948	499	449	34.3	35.7	32.8
-	-	-	Malignant neoplasms of respiratory and intrathoracic organs (160-165) .....	1,048	565	483	37.9	40.4	35.3
-	-	-	Malignant neoplasm of breast (174-175).....	329	3	326	11.9	--	23.8
-	-	-	Malignant neoplasms of genital organs (179-187).....	394	206	188	14.3	14.7	13.8
-	-	-	Malignant neoplasms of urinary organs (188-189).....	157	116	41	5.7	8.3	3.0
-	-	-	Malignant neoplasms of all other and unspecified sites (170-173, 190-199).....	473	255	218	17.1	18.3	15.9
-	-	-	Leukemia (204-208) .....	173	93	80	6.3	6.7	5.9
-	-	-	Other malignant neoplasms of lymphatic and hematopoietic tissue (200-203) .....	233	122	111	8.4	8.7	8.1
<b>3</b>	<b>3</b>	<b>3</b>	<b>Cerebrovascular diseases (430-438) .....</b>	<b>1,193</b>	<b>435</b>	<b>758</b>	<b>43.2</b>	<b>31.1</b>	<b>55.5</b>
-	-	-	Intracerebral and other intracranial hemorrhage (431-432) .....	174	80	94	6.3	5.7	6.9
-	-	-	Cerebral thrombosis and unspecified occlusion of cerebral arteries (434.0, 434.9) .....	62	23	39	2.2	1.6	2.9
-	-	-	Cerebral embolism (434.1) .....	4	1	3	--	--	--
-	-	-	All other and late effects of cerebrovascular diseases (430, 433, 435-438) .....	953	331	622	34.5	23.7	45.5
<b>4</b>	<b>3</b>	<b>4</b>	<b>Pneumonia and influenza (480-487).....</b>	<b>1,028</b>	<b>435</b>	<b>593</b>	<b>37.2</b>	<b>31.1</b>	<b>43.4</b>
-	-	-	Pneumonia (480-486) .....	1,014	432	582	36.7	30.9	42.6
-	-	-	Influenza (487) .....	14	3	11	0.5	--	0.8

Rank				No. of Deaths			Rate <sup>..</sup>			
	Both	Male	Fem.	Both sexes	Male	Fem.	Both sexes	Male	Fem.	
5	5	5	5	<b>Cause of Death (ICD9 code)</b>						
				<i>Chronic obstructive pulmonary diseases and allied conditions (490-496)</i>	899	406	493	32.5	29.1	36.1
-	-	-	-	Bronchitis, chronic and unspecified (490-491) .....	20	8	12	0.7	0.6	0.9
-	-	-	-	Emphysema (492) .....	125	59	66	4.5	4.2	4.8
-	-	-	-	Asthma (493) .....	20	10	10	0.7	0.7	0.7
-	-	-	-	Other chronic obstructive pulmonary diseases and allied conditions (494-496) .....	734	329	405	26.6	23.6	29.6
6	6	7	7	<i>Accidents and adverse effects (E800-E949)</i>	533	364	169	19.3	26.1	12.4
-	-	-	-	Motor vehicle accidents (E810-E825) .....	184	120	64	6.7	8.6	4.7
-	-	-	-	All other accidents and adverse effects (E800-E807, E826-E949) .....	349	244	105	12.6	17.5	7.7
7	8	6	6	<i>Diabetes mellitus (250)</i>	344	153	191	12.4	11.0	14.0
8	7	12	12	<i>Suicide (E950-E959)</i>	228	160	68	8.2	11.5	5.0
9	10	8	8	<i>Atherosclerosis (440)</i>	217	77	140	7.9	5.5	10.2
10	9	10	10	<i>Chronic liver disease and cirrhosis (571)</i>	208	131	77	7.5	9.4	5.6
11	14	9	9	<i>Alzheimer's disease (331.0)</i>	174	57	117	6.3	4.1	8.6
12	16	11	11	<i>Hypertension with or without renal disease (401, 403)</i>	122	47	75	4.4	3.4	5.5
13	13	13	13	<i>Congenital anomalies (740-759)</i>	109	63	46	3.9	4.5	3.4
14	14	13	13	<i>Certain conditions originating in the perinatal period (760-779)</i>	103	57	46	3.7	4.1	3.4
-	-	-	-	Birth trauma, intrauterine hypoxia, birth asphyxia, & respir. distress. synd. (767-769) .	5	1	4	0.2	--	--
-	-	-	-	Other conditions originating in the perinatal period (760-766, 770-779) .....	98	56	42	3.5	4.0	3.1
15	11	18	18	<i>Homicide and legal intervention (E960-E978)</i>	95	73	22	3.4	5.2	1.6
16	17	15	15	<i>Nephritis, nephrotic syndrome, and nephrosis (580-589)</i>	77	37	40	2.8	2.6	2.9
-	-	-	-	Acute glomerulonephritis and nephrotic syndrome (580-581) .....	1	1	0	--	--	--
-	-	-	-	Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and renal sclerosis, unspecified (582-583, 587) .....	15	6	9	0.5	0.4	0.7
-	-	-	-	Renal failure, disorders resulting from impaired renal function, and small kidney or unknown cause (584-586, 588-589) .....	61	30	31	2.2	2.1	2.3
17	12	21	21	<i>HIV infection (042-044)</i>	72	64	8	2.6	4.6	0.6
18	18	17	17	<i>Viral hepatitis (070)</i>	58	35	23	2.1	2.5	1.7
19	20	16	16	<i>Hernia of abd. cavity and intestinal obstr. w/out mention of hernia (550-553, 560)</i>	42	15	27	1.5	1.1	2.0
20	19	19	19	<i>Ulcer of stomach and duodenum (531-533)</i>	36	19	17	1.3	1.4	1.2
21	21	20	20	<i>Benign neoplasms, carcinoma in situ, &amp; neoplasms of unspec. Nature (210-239)</i>	21	11	10	0.8	0.8	0.7
22	21	23	23	<i>Cholelithiasis and other disorders of gallbladder (574-575)</i>	18	11	7	0.7	0.8	0.5
23	23	27	27	<i>Tuberculosis (010-018)</i>	13	10	3	0.5	0.7	--
-	-	-	-	Tuberculosis of respiratory system (010-012) .....	10	8	2	0.4	0.6	--

Rank			No. of Deaths			Rate <sup>--</sup>		
Both	Male	Fem.	Both sexes	Male	Fem.	Both sexes	Male	Fem.
-	-	-	Other tuberculosis (010-012) .....	3	2	1	--	--
23	24	21	<i>Anemias</i> (280-285).....	13	5	8	0.5	0.4
25	26	24	<i>Septicemia</i> (038).....	8	2	6	0.3	--
26	26	25	<i>Infections of kidney</i> (590).....	7	2	5	0.3	--
27	26	28	<i>Appendicitis</i> (540-543).....	4	2	2	--	--
27	25	30	<i>Meningitis</i> (320-322).....	4	3	1	--	--
27	-	26	<i>Complications of pregnancy, childbirth, and the puerperium</i> (630-676).....	4	0	4	--	--
-	-	-	Pregnancy with abortive outcome (630-638) .....	0	0	0	--	--
-	-	-	Other complications of pregnancy, childbirth, and the puerperium (640-676) .....	4	0	4	--	--
30	-	28	<i>Meningococcal infection</i> (036).....	2	0	2	--	--
30	30	30	<i>Nutritional deficiencies</i> (260-269).....	2	1	1	--	--
30	26	-	<i>Hyperplasia of prostate</i> (600).....	2	2	0	--	--
33	30	-	<i>Acute bronchitis and bronchiolitis</i> (466)	1	1	0	--	--

-- Rate not calculated for deaths fewer than five

**Cause of Death by ICD9 codes**  
**Orange County, 1998, 72 Selected Causes (Resident Deaths)**

<b>Cause of Death (ICD9 code)</b>	<b>No. of Deaths</b>			<b>Rate--</b>		
	<b>Both sexes</b>	<b>Male</b>	<b>Fem.</b>	<b>Both sexes</b>	<b>Male</b>	<b>Fem.</b>
<i>Shigellosis and amebiasis</i> (004, 006) .....	0	0	0	--	--	--
<i>Certain other intestinal infections</i> (007-009) .....	1	1	0	0.0	--	0.0
<i>Tuberculosis</i> (010-018) .....	13	10	3	0.5	0.7	0.2
Tuberculosis of respiratory system (010-012) .....	10	8	2	0.4	0.6	0.1
Other tuberculosis (010-012) .....	3	2	1	--	--	--
<i>Whooping cough</i> (033) .....	0	0	0	--	--	--
<i>Streptococcal sore throat, scarlatina, and erysipelas</i> (034-035) .....	0	0	0	--	--	--
<i>Meningococcal infection</i> (036) .....	2	0	2	--	--	--
<i>Septicemia</i> (038) .....	8	2	6	0.3	--	0.4
<i>HIV infection</i> (042-044) .....	72	64	8	2.6	4.6	0.6
<i>Measles</i> (055) .....	0	0	0	--	--	--
<i>Viral hepatitis</i> (070) .....	58	35	23	2.1	2.5	1.7
<i>Syphilis</i> (090-097) .....	0	0	0	--	--	--
<i>All other infectious and parasitic diseases</i> (001-003, 005, 020-032,037, 039-041, 046-054, 056-066, 071-088, 098-139) .....	14	7	7	0.5	0.5	0.5
<i>Malignant neoplasms, incl. lymphatic and hematopoietic tissues</i> (140-208) .....	3,809	1,891	1,918	137.8	135.4	140.3
Malignant neoplasms of lip, oral cavity, and pharynx (140-149) .....	54	32	22	2.0	2.3	1.6
Malignant neoplasms of digestive organs and peritoneum (150-159) .....	948	499	449	34.3	35.7	32.8
Malignant neoplasms of respiratory and intrathoracic organs (160-165) .....	1,048	565	483	37.9	40.4	35.3
Malignant neoplasm of breast (174-175) .....	329	3	326	11.9	--	23.8
Malignant neoplasms of genital organs (179-187) .....	394	206	188	14.3	14.7	13.8
Malignant neoplasms of urinary organs (188-189) .....	157	116	41	5.7	8.3	3.0
Malignant neoplasms of all other and unspecified sites (170-173, 190-199) .....	473	255	218	17.1	18.3	15.9
Leukemia (204-208) .....	173	93	80	6.3	6.7	5.9
Other malignant neoplasms of lymphatic and hematopoietic tissue (200-203) .....	233	122	111	8.4	8.7	8.1
<i>Benign neoplasms, carcinoma in situ, &amp; neoplasms of unspec. Nature</i> (210-239)	21	11	10	0.8	0.8	0.7
<i>Diabetes mellitus</i> (250) .....	344	153	191	12.4	11.0	14.0
<i>Nutritional deficiencies</i> (260-269) .....	2	1	1	--	--	--
<i>Anemias</i> (280-285) .....	13	5	8	0.5	0.4	0.6
<i>Meningitis</i> (320-322) .....	4	3	1	--	--	--
<i>Alzheimer's disease</i> (331.0) .....	174	57	117	6.3	4.1	8.6

<b>Cause of Death (ICD9 code)</b>	<b>No. of Deaths</b>			<b>Rate</b>		
	<b>Both sexes</b>	<b>Male</b>	<b>Fem.</b>	<b>Both sexes</b>	<b>Male</b>	<b>Fem.</b>
<b>Major cardiovascular diseases (390-448) .....</b>	6,800	3,145	3,655	246.0	225.2	267.4
Diseases of heart (390-398, 402, 404-429) .....	5,085	2,496	2,589	184.0	178.7	189.4
Rheumatic fever and rheumatic heart disease (390-398) .....	29	8	21	1.0	0.6	1.5
Hypertensive heart disease (402) .....	213	81	132	7.7	5.8	9.7
Hypertensive heart and renal disease (404) .....	3	2	1	--	--	--
Ischemic heart disease (410-414) .....	3,660	1,833	1,827	132.4	131.2	133.7
Acute myocardial infarction (410) .....	1,444	757	687	52.2	54.2	50.3
Other acute and subacute forms of ischemic heart disease (411) .....	4	2	2	--	--	--
Angina pectoris (413) .....	2	1	1	--	--	--
Old myocardial infarction, and other chronic ischemic heart disease (412, 414) .....	2,210	1,073	1,137	80.0	76.8	83.2
Other diseases of endocardium (424) .....	97	41	56	3.5	2.9	4.1
All other forms of heart disease (415-423, 425-429) .....	1,083	531	552	39.2	38.0	40.4
Hypertension with or without renal disease (401, 403) .....	122	47	75	4.4	3.4	5.5
Cerebrovascular diseases (430-438) .....	1,193	435	758	43.2	31.1	55.5
Intracerebral and other intracranial hemorrhage (431-432) .....	174	80	94	6.3	5.7	6.9
Cerebral thrombosis and unspecified occlusion of cerebral arteries (434.0, 434.9) .....	62	23	39	2.2	1.6	2.9
Cerebral embolism (434.1) .....	4	1	3	--	--	--
All other and late effects of cerebrovascular diseases (430, 433, 435-438) .....	953	331	622	34.5	23.7	45.5
Atherosclerosis (440) .....	217	77	140	7.9	5.5	10.2
Other diseases of arteries, arterioles, and capillaries (441-448) .....	183	90	93	6.6	6.4	6.8
<b>Acute bronchitis and bronchiolitis (466) .....</b>	1	1	0	--	--	--
<b>Pneumonia and influenza (480-487) .....</b>	1,028	435	593	37.2	31.1	43.4
Pneumonia (480-486) .....	1,014	432	582	36.7	30.9	42.6
Influenza (487) .....	14	3	11	0.5	--	0.8
<b>Chronic obstructive pulmonary diseases and allied conditions (490-496) .....</b>	899	406	493	32.5	29.1	36.1
Bronchitis, chronic and unspecified (490-491) .....	20	8	12	0.7	0.6	0.9
Emphysema (492) .....	125	59	66	4.5	4.2	4.8
Asthma (493) .....	20	10	10	0.7	0.7	0.7
Other chronic obstructive pulmonary diseases and allied conditions (494-496) .....	734	329	405	26.6	23.6	29.6
<b>Ulcer of stomach and duodenum (531-533) .....</b>	36	19	17	1.3	1.4	1.2
<b>Appendicitis (540-543) .....</b>	4	2	2	--	--	--
<b>Hernia of abd. cavity and intestinal obstr. w/out mention of hernia (550-553, 560) .....</b>	42	15	27	1.5	1.1	2.0
<b>Chronic liver disease and cirrhosis (571) .....</b>	208	131	77	7.5	9.4	5.6
<b>Cholelithiasis and other disorders of gallbladder (574-575) .....</b>	18	11	7	0.7	0.8	0.5

<b>Cause of Death (ICD9 code)</b>	<b>No. of Deaths</b>			<b>Rate</b>		
	<b>Both sexes</b>	<b>Male</b>	<b>Fem.</b>	<b>Both sexes</b>	<b>Male</b>	<b>Fem.</b>
<i>Nephritis, nephrotic syndrome, and nephrosis</i> (580-589).....	77	37	40	2.8	2.6	2.9
Acute glomerulonephritis and nephrotic syndrome (580-581) .....	1	1	0	--	--	--
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or	15	6	9	0.5	0.4	0.7
Renal failure, disorders resulting from impaired renal function, and small kidney or	61	30	31	2.2	2.1	2.3
<i>Infections of kidney</i> (590) .....	7	2	5	0.3	--	0.4
<i>Hyperplasia of prostate</i> (600) .....	2	2	0	--	--	--
<i>Complications of pregnancy, childbirth, and the puerperium</i> (630-676) .....	4	0	4	--	--	--
Pregnancy with abortive outcome (630-638) .....	0	0	0	--	--	--
Other complications of pregnancy, childbirth, and the puerperium (640-676) .....	4	0	4	--	--	--
<i>Congenital anomalies</i> (740-759) .....	109	63	46	3.9	4.5	3.4
<i>Certain conditions originating in the perinatal period</i> (760-779) .....	103	57	46	3.7	4.1	3.4
Birth trauma, intrauterine hypoxia, birth asphyxia, & respir. distress. synd. (767-769) .	5	1	4	0.2	--	--
Other conditions originating in the perinatal period (760-766, 770-779) .....	98	56	42	3.5	4.0	3.1
<i>Symptoms, signs, and ill-defined conditions</i> (780-799) .....	53	34	19	1.9	2.4	1.4
<i>Accidents and adverse effects</i> (E800-E949) .....	533	364	169	19.3	26.1	12.4
Motor vehicle accidents (E810-E825) .....	184	120	64	6.7	8.6	4.7
All other accidents and adverse effects (E800-E807, E826-E949) .....	349	244	105	12.6	17.5	7.7
<i>Suicide</i> (E950-E959) .....	228	160	68	8.2	11.5	5.0
<i>Homicide and legal intervention</i> (E960-E978) .....	95	73	22	3.4	5.2	1.6
<i>All other external causes</i> (E980-E999) .....	21	13	8	0.8	0.9	--
<i>All other diseases</i> .....	1,170	494	676	42.3	35.4	49.5

-- Rates not calculated for deaths fewer than five

## Fifteen Leading Causes of Death Orange County, 1998 (Resident Deaths)

Cause of death (ICD9 code)	All Races			White			Hispanic			Asian & Pacific Isl**			African Am.		
	No.	Rate*	Rate	No.	Rate*	Rate	No.	Rate*	Rate	No.	Rate*	Rate	No.	Rate*	Rate
Diseases of heart (390-398, 402, 404-429)	5,085	104.0	<b>104.2</b>	4,406	271.9	<b>111.0</b>	354	153	<b>73.3</b>	254	74.1	<b>71.2</b>	60	132.1	<b>201.1</b>
Malign. neoplasms, incl. lymphatic and hematopoietic tissues (140-208)	3,809	131.8	<b>101.8</b>	3,180	200.5	<b>108.9</b>	307	193	<b>65.4</b>	281	82.0	<b>84.0</b>	31	68.3	<b>99.9</b>
Cerebrovascular diseases (430-438)	1,193	43.2	<b>23.2</b>	986	62.2	<b>22.8</b>	99	21	<b>20.3</b>	89	26.0	<b>24.6</b>	16	35.2	<b>60.5</b>
Pneumonia and influenza (480-487)	1,028	31.2	<b>17.3</b>	902	56.9	<b>18.3</b>	58	14	<b>10.2</b>	60	17.5	<b>14.9</b>	7	15.4	<b>30.7</b>
Chronic obstr. pulmonary disease (490-496)	899	32.5	<b>19.9</b>	813	51.3	<b>22.2</b>	44	5.6	<b>8.8</b>	34	9.9	<b>9.7</b>	7	15.4	<b>19.1</b>
Accidents & adverse effects (E800-E949)	533	19.3	<b>17.6</b>	362	22.8	<b>18.5</b>	125	16.0	<b>19.8</b>	37	10.8	<b>11.3</b>	7	15.4	<b>21.1</b>
Motor vehicle accidents (E810-E825)	184	6.1	<b>6.9</b>	101	6.4	<b>6.2</b>	55	10	<b>8.4</b>	25	13	<b>8.0</b>	2	oo	oo
All other accidents (E800-E807, E826-E949)	349	12.6	<b>10.7</b>	261	16.5	<b>12.3</b>	70	9.0	<b>11.4</b>	12	3.5	<b>3.3</b>	5	11.0	<b>16.6</b>
Diabetes mellitus (250)	344	12.4	<b>8.9</b>	234	14.8	<b>7.5</b>	69	8.8	<b>16.3</b>	35	10.2	<b>10.4</b>	6	13.2	<b>21.6</b>
Suicide (E950-E959)	228	8.2	<b>7.2</b>	186	11.1	<b>9.4</b>	23	2.9	<b>3.5</b>	18	5.3	<b>5.3</b>	1	oo	oo
Atherosclerosis (440)	217	19	<b>3.7</b>	201	21	<b>4.1</b>	10	13	<b>1.9</b>	4	oo	<b>oo</b>	2	oo	oo
Chronic liver disease & cirrhosis (571)	208	15	<b>6.3</b>	140	8.8	<b>5.8</b>	56	12	<b>11.4</b>	11	3.2	<b>3.4</b>	1	oo	oo
Alzheimer's disease (331.0)	174	6.3	<b>3.0</b>	161	10.2	<b>3.4</b>	7	0.9	<b>1.2</b>	4	oo	<b>oo</b>	1	oo	oo
Hypert. with or w/out renal dis. (401, 403)	122	4.4	<b>2.5</b>	98	6.2	<b>2.4</b>	6	0.8	<b>1.1</b>	13	3.8	<b>3.3</b>	5	11.0	<b>15.0</b>
Congenital anomalies (740-759)	109	3.9	<b>3.7</b>	51	3.2	<b>3.7</b>	45	5.8	<b>3.9</b>	12	3.5	<b>3.4</b>	0	oo	oo
Cond's origin'g in perin. period (760-779)	103	3.1	<b>3.4</b>	38	2.4	<b>3.3</b>	45	5.8	<b>3.1</b>	15	4.4	<b>4.1</b>	5	11.0	<b>12.5</b>
Homicide & legal interv. (E960-E978)	95	3.4	<b>4.1</b>	30	1.9	<b>2.0</b>	45	5.8	<b>6.6</b>	15	4.4	<b>4.7</b>	4	oo	oo
Nephritis, neph. synd. & nephrosis (580-589)	77	2.8	<b>1.6</b>	56	3.5	<b>1.4</b>	8	1.0	<b>1.6</b>	11	3.2	<b>3.0</b>	2	oo	oo
HIV (042-044)	72	2.6	<b>2.3</b>	42	2.6	<b>2.2</b>	25	3.2	<b>3.7</b>	3	oo	<b>oo</b>	2	oo	oo
Viral hepatitis (070)	58	2.1	<b>1.8</b>	30	1.9	<b>1.3</b>	9	1.2	<b>1.8</b>	19	5.5	<b>6.1</b>	0	oo	oo
Hernia of abd. cavity & intest. obstr. w/out hernia (550-553, 560)	42	1.5	0.8	32	2.0	0.8	4	oo	oo	3	oo	oo	3	oo	oo
Ulcer of stomach & duodenum (531-533)	36	1.3	<b>0.8</b>	26	1.6	<b>0.6</b>	5	0.6	<b>0.9</b>	5	1.5	<b>1.4</b>	0	oo	oo
Benign neoplasms, carcinoma in situ, & neoplasms of unspec. nature (210,239)	21	0.8	<b>0.6</b>	15	0.9	<b>0.5</b>	6	0.8	<b>1.0</b>	0	oo	oo	0	oo	oo
Tuberculosis (010-018)	13	0.5	<b>0.4</b>	3	oo	oo	5	0.6	<b>1.0</b>	5	1.5	<b>1.3</b>	0	oo	oo
Meningococcal infection (036)	2	oo	oo	1	oo	oo	0	oo	oo	0	oo	<b>0.0</b>	1	oo	oo

\* Rate per 100,000 pop. within specified racial/ethnic group

-- Rate not calculated for deaths fewer than five

\*\* Includes Southeast Asians

Not among 15 leading causes of death

***Ten Leading Causes of Death  
Among Whites  
Orange County, 1998 (Resident Deaths)***

<u>Rank</u>		<u>Number of Deaths</u>	<u>% of tot. White Deaths</u>
1	<b>Diseases of heart</b> (390-398, 402, 404-429) .....	4,406	33.2%
2	<b>Malignant neoplasms, incl. lymphatic and hematopoietic tissues</b> (140-208)....	3,180	24.0%
3	<b>Cerebrovascular diseases</b> (430-438).....	986	7.4%
4	<b>Pneumonia and influenza</b> (480-487).....	902	6.8%
5	<b>Chronic obstructive pulmonary diseases and allied conditions</b> (490-496).....	813	6.1%
6	<b>Accidents and adverse effects</b> (E800-E949).....	362	2.7%
-	Motor vehicle accidents (E810-E825).....	101	0.8%
-	All other accidents and adverse effects (E800-E807, E826-E949).....	261	2.0%
7	<b>Diabetes mellitus</b> (250).....	234	1.8%
8	<b>Atherosclerosis</b> (440).....	201	1.5%
9	<b>Suicide</b> (E950-E959).....	186	1.4%
10	<b>Alzheimer's disease</b> (331.0).....	161	1.2%
-	<b>All other causes</b> .....	1,834	13.8%
<b>Total</b> .....		<b>13,265</b>	<b>100.0%</b>

***Ten Leading Causes of Death  
Among Hispanics  
Orange County, 1998 (Resident Deaths)***

<u>Rank</u>		<u>Number of Deaths</u>	<u>% of tot. Hisp. Deaths</u>
1	<b>Diseases of heart</b> (390-398, 402, 404-429) .....	354	23.4%
2	<b>Malignant neoplasms, incl. lymphatic and hematopoietic tissues</b> (140-208)....	307	20.3%
3	<b>Accidents and adverse effects</b> (E800-E949).....	125	8.3%
-	Motor vehicle accidents (E810-E825).....	55	3.6%
-	All other accidents and adverse effects (E800-E807, E826-E949).....	70	4.6%
4	<b>Cerebrovascular diseases</b> (430-438).....	99	6.5%
5	<b>Diabetes mellitus</b> (250).....	69	4.6%
6	<b>Pneumonia and influenza</b> (480-487).....	58	3.8%
7	<b>Chronic liver disease and cirrhosis</b> (571).....	56	3.7%
8	<b>Congenital anomalies</b> (740-759).....	45	3.0%
8	<b>Certain conditions originating in the perinatal period</b> (760-779).....	45	3.0%
8	<b>Homicide and legal intervention</b> (E960-E978).....	45	3.0%
-	<b>All other causes</b> .....	310	20.5%
<b>Total</b> .....		<b>1,513</b>	<b>100.0%</b>

**Ten Leading Causes of Death  
Among Southeast Asians  
Orange County, 1998 (Resident Deaths)**

<u>Rank</u>		Number of Deaths	% of tot. SEA Deaths
1	<b><i>Malignant neoplasms, incl. lymphatic and hematopoietic tissues</i></b> (140-208).....	100	28.7%
2	<b><i>Diseases of heart</i></b> (390-398, 402, 404-429) .....	63	18.1%
3	<b><i>Cerebrovascular diseases</i></b> (430-438).....	38	10.9%
4	<b><i>Pneumonia and influenza</i></b> (480-487).....	22	6.3%
5	<b><i>Chronic obstructive pulmonary diseases and allied conditions</i></b> (490-496).....	20	5.7%
6	<b><i>Diabetes mellitus</i></b> (250).....	13	3.7%
6	<b><i>Accidents and adverse effects</i></b> (E800-E949).....	13	3.7%
-	Motor vehicle accidents (E810-E825).....	9	2.6%
-	All other accidents and adverse effects (E800-E807, E826-E949) .....	4	1.1%
8	<b><i>Viral hepatitis</i></b> (070).....	11	3.2%
8	<b><i>Homicide and legal intervention</i></b> (E960-E978).....	11	3.2%
10	<b><i>Certain conditions originating in the perinatal period</i></b> (760-779).....	5	1.4%
-	<b>All other causes</b> .....	52	14.9%
<b>Total</b> .....		348	100.0%

**Ten Leading Causes of Death  
Among Other Asians  
Orange County, 1998 (Resident Deaths)**

<u>Rank</u>		Number of Deaths	% of tot. Oth. Asian Deaths
1	<b><i>Diseases of heart</i></b> (390-398, 402, 404-429) .....	191	29.8%
2	<b><i>Malignant neoplasms, incl. lymphatic and hematopoietic tissues</i></b> (140-208).....	181	28.3%
3	<b><i>Cerebrovascular diseases</i></b> (430-438).....	51	8.0%
4	<b><i>Pneumonia and influenza</i></b> (480-487).....	38	5.9%
5	<b><i>Accidents and adverse effects</i></b> (E800-E949).....	24	3.8%
-	Motor vehicle accidents (E810-E825).....	16	2.5%
-	All other accidents and adverse effects (E800-E807, E826-E949) .....	8	1.3%
6	<b><i>Diabetes mellitus</i></b> (250).....	22	3.4%
7	<b><i>Suicide</i></b> (E950-E959).....	15	2.3%
8	<b><i>Chronic obstructive pulmonary diseases and allied conditions</i></b> (490-496).....	14	2.2%
9	<b><i>Certain conditions originating in the perinatal period</i></b> (760-779).....	10	1.6%
10	<b><i>Nephritis, nephrotic syndrome, and nephrosis</i></b> (580-589).....	9	1.4%
-	<b>All other causes</b> .....	85	13.3%
<b>Total</b> .....		640	100.0%

**Ten Leading Causes of Death  
Among African Americans  
Orange County, 1998 (Resident Deaths)**

<u>Rank</u>			% of tot.
			<u>Number of Deaths</u>
1	<b>Diseases of heart</b> (390-398, 402, 404-429) .....	60	34.7%
2	<b>Malignant neoplasms, incl. lymphatic and hematopoietic tissues</b> (140-208) ....	31	17.9%
3	<b>Cerebrovascular diseases</b> (430-438) .....	16	9.2%
4	<b>Pneumonia and influenza</b> (480-487) .....	7	4.0%
4	<b>Accidents and adverse effects</b> (E800-E949) .....	7	4.0%
-	Motor vehicle accidents (E810-E825) .....	2	1.2%
-	All other accidents and adverse effects (E800-E807, E826-E949) .....	5	2.9%
4	<b>Chronic obstructive pulmonary diseases and allied conditions</b> (490-496) .....	7	4.0%
7	<b>Diabetes mellitus</b> (250) .....	6	3.5%
8	<b>Certain conditions originating in the perinatal period</b> (760-779) .....	5	2.9%
8	<b>Hypertension with or without renal disease</b> (401, 403) .....	5	2.9%
10	<b>Homicide and legal intervention</b> (E960-E978) .....	4	2.3%
-	<b>All other causes</b> .....	25	14.5%
<b>Total</b> .....		<b>173</b>	<b>100.0%</b>

**Ten Leading Causes of Death  
Among Other groups  
Orange County, 1998 (Resident Deaths)**

<u>Rank</u>			% of
			<u>Number of Deaths</u>
1	<b>Diseases of heart</b> (390-398, 402, 404-429) .....	9	33.3%
1	<b>Malignant neoplasms, incl. lymphatic and hematopoietic tissues</b> (140-208) ....	9	33.3%
3	<b>Cerebrovascular diseases</b> (430-438) .....	2	7.4%
3	<b>Accidents and adverse effects</b> (E800-E949) .....	2	7.4%
-	Motor vehicle accidents (E810-E825) .....	1	3.7%
-	All other accidents and adverse effects (E800-E807, E826-E949) .....	1	3.7%
5	<b>Pneumonia and influenza</b> (480-487) .....	1	3.7%
5	<b>Chronic obstructive pulmonary diseases and allied conditions</b> (490-496) .....	1	3.7%
5	<b>Congenital anomalies</b> (740-759) .....	1	3.7%
5	<b>Alzheimer's disease</b> (331.0) .....	1	3.7%
-	<b>All other causes</b> .....	1	3.7%
<b>Total</b> .....		<b>27</b>	<b>100.0%</b>

***Deaths Due to Malignant Neoplasms***  
***Orange County, 1998 (Resident Deaths)***

	Rate*	All races			White		Hispanic		SE Asian		Oth. Asian		African Am.		Other	
		Tot.	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.
<b>Malignant neoplasms:</b> (140-208)	<b>138.8</b>	3,809	1,891	1,918	1,563	1,618	154	153	63	37	91	90	14	17	6	3
<i>Trachea, bronchus, and lung</i> (162)	<b>36.5</b>	1,001	530	471	463	425	20	20	12	7	28	17	6	1	1	1
<i>Breast (female)</i> (174)	<b>24.0</b>	326	...	326	...	276	...	27	...	3	...	15	...	5	...	0
<i>Prostate</i> (185)	<b>14.6</b>	202	202	...	178	...	16	...	2	...	3	...	1	...	2	...
<i>Colon, rectum, rectosigm. junc. &amp; anus</i> (153, 154)	<b>13.5</b>	371	180	191	145	156	15	8	6	5	11	19	3	3	0	0
<i>Ovary</i> (183.0)	<b>7.8</b>	106	...	106	...	93	...	10	...	0	...	3	...	0	...	0
<i>Pancreas</i> (157)	<b>7.2</b>	199	90	109	69	90	8	11	5	2	8	5	0	0	0	1
<i>Leukemia</i> (204-208)	<b>6.3</b>	173	93	80	69	70	16	6	3	1	5	3	0	0	0	0
<i>Brain &amp; oth/unspec. parts of nervous syst.</i> (191, 192)	<b>5.6</b>	154	90	64	77	52	9	4	2	4	2	4	0	0	0	0
<i>Lymphoma other than Hodgkin's disease</i> (200, 202)	<b>5.5</b>	152	79	73	65	61	9	10	1	1	4	1	0	0	0	0
<i>Liver &amp; intrahepatic bile ducts</i> (155)	<b>5.5</b>	151	88	63	50	45	9	5	17	4	11	6	1	3	0	0
<i>Stomach</i> (151)	<b>3.5</b>	97	53	44	35	25	8	11	4	3	6	5	0	0	0	0
<i>Bladder</i> (188)	<b>3.4</b>	93	67	26	57	24	3	1	3	0	1	1	1	0	2	0
<i>Body of uterus and uterus, part unspec.</i> (179, 182)	<b>3.0</b>	41	...	41	...	36	...	4	...	0	...	1	...	0	...	0
<i>Esophagus</i> (150)	<b>3.0</b>	81	58	23	49	20	7	1	0	0	2	1	0	1	0	0
<i>Melanoma of skin</i> (172)	<b>2.6</b>	72	41	31	41	31	0	0	0	0	0	0	0	0	0	0
<i>Multiple myeloma &amp; oth. immunoproliferative</i> (203)	<b>2.6</b>	72	38	34	29	29	7	3	1	1	0	0	1	1	0	0
<i>Kidney &amp; oth &amp; unspec. urinary organs</i> (189)	<b>2.3</b>	64	49	15	40	13	6	0	0	1	2	0	1	0	0	1
<i>Cervix uteri</i> (180)	<b>2.0</b>	27	...	27	...	19	...	5	...	2	...	1	...	0	...	0
<i>Hodgkin's disease</i> (201)	<b>0.3</b>	9	5	4	5	2	0	2	0	0	0	0	0	0	0	0
<i>Unspecified site</i> (199)	<b>3.8</b>	103	53	50	46	41	4	5	3	1	0	2	0	1	0	0
<i>All other</i>	<b>11.4</b>	314	175	139	141	110	17	20	4	2	8	6	0	2	1	0

\* per 100,000 pop. (rate is sex-specific when neoplasm is applicable to one sex only)

... category not applicable

***Deaths Due to External Causes***  
***Orange County, 1998 (Resident Deaths)***

<i>Cause of Death</i>	ICD 9	sex	Age Group													
			all ages	under 1 yr	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
<i>Total, external causes</i>	E800-E999	M	610	3	10	9	9	43	62	100	132	77	51	37	48	29
		F	267	1	7	4	2	6	18	31	51	40	31	27	29	20
		Tot.	877	4	17	13	11	49	80	131	183	117	82	64	77	49
<i>Suicide</i>	E950-E959	M	160	0	0	0	0	6	12	28	36	27	13	11	18	9
		F	68	0	0	0	0	1	3	9	17	13	7	8	7	3
		Tot.	228	0	0	0	0	7	15	37	53	40	20	19	25	12
<i>Motor vehicle accidents</i>	E810-E825	M	120	1	2	5	4	12	18	20	16	15	13	8	5	1
		F	64	0	2	1	2	4	6	11	8	7	11	6	5	1
		Tot.	184	1	4	6	6	16	24	31	24	22	24	14	10	2
<i>Accidental poisoning</i>	E850-E869	M	108	0	0	0	0	2	8	23	46	19	5	3	2	0
		F	48	0	0	0	0	0	2	4	20	13	2	5	2	0
		Tot.	156	0	0	0	0	2	10	27	66	32	7	8	4	0
<i>Accidental falls</i>	E880-E888	M	70	0	1	0	1	0	0	3	9	6	11	8	16	15
		F	32	0	0	0	0	0	0	0	1	1	3	5	9	13
		Tot.	102	0	1	0	1	0	0	3	10	7	14	13	25	28
<i>Homicide</i>	E960-E969	M	64	1	2	0	2	19	14	12	6	3	3	0	2	0
		F	22	1	2	0	0	1	6	5	3	3	1	0	0	0
		Tot.	86	2	4	0	2	20	20	17	9	6	4	0	2	0
<i>Other accidents</i>	E900-E909, E911-E929	M	34	1	1	1	1	2	4	3	8	4	2	3	3	1
		F	13	0	1	3	0	0	0	1	2	1	2	0	2	1
		Tot.	47	1	2	4	1	2	4	4	10	5	4	3	5	2
<i>Accidental drowning</i>	E910	M	17	0	4	2	1	1	1	1	4	0	2	0	1	0
		F	3	0	1	0	0	0	1	0	0	0	0	0	1	0
		Tot.	20	0	5	2	1	1	2	1	4	0	2	0	2	0
<i>Injury undetermined whether accidentally or purposely inflicted</i>	E980-E989	M	11	0	0	1	0	0	2	2	4	0	1	0	0	1
		F	5	0	1	0	0	0	0	1	0	1	0	1	1	0
		Tot.	16	0	1	1	0	0	2	3	4	1	1	1	1	1

***Deaths Due to External Causes***  
***Orange County, 1998 (Resident Deaths)***

<i>Cause of Death</i>	ICD 9	sex	Age Group													
			all ages	under 1 yr	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
<i>Medical or surgical complic., misadvent. or adverse reactions</i>	E870-E879, E930-E949	M	4	0	0	0	0	0	0	0	1	0	0	2	0	1
		F	6	0	0	0	0	0	0	0	0	0	3	1	1	1
		Tot.	10	0	0	0	0	0	0	0	1	0	3	3	1	2
<i>Legal intervention</i>	E970-E978	M	9	0	0	0	0	1	2	5	1	0	0	0	0	0
		F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Tot.	9	0	0	0	0	1	2	5	1	0	0	0	0	0
<i>Accidents caused by fires and flames</i>	E890-E899	M	6	0	0	0	0	0	0	0	1	2	1	1	0	1
		F	2	0	0	0	0	0	0	0	0	0	0	1	1	0
		Tot.	8	0	0	0	0	0	0	0	1	2	1	2	1	1
<i>Other transportation accidents</i>	E800-E807, E826-E829 E830-E848	M	5	0	0	0	0	0	0	3	0	1	0	1	0	0
		F	1	0	0	0	0	0	0	0	0	1	0	0	0	0
		Tot.	6	0	0	0	0	0	0	3	0	2	0	1	0	0
<i>War-related</i>	E990-E999	M	2	0	0	0	0	0	1	0	0	0	0	0	1	0
		F	3	0	0	0	0	0	0	0	0	0	2	0	0	1
		Tot.	5	0	0	0	0	0	1	0	0	0	2	0	1	1

**Suicides**  
*By method, age, and sex*  
*Orange County - 1998 (Resident Deaths)*

<i>Method</i>		Age Group									
		All	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
<i>Firearms and explosives (E955)</i>	M	90	3	7	14	15	18	7	8	11	7
	F	21	0	2	4	5	3	2	5	0	0
	Tot.	111	3	9	18	20	21	9	13	11	7
	Rate	<b>4.0</b>	--	<b>5.6</b>	<b>3.9</b>	<b>4.2</b>	<b>6.0</b>	<b>4.0</b>	<b>8.6</b>	<b>13.2</b>	<b>25.3</b>
<i>Hanging, strangulation, suffocation (E953)</i>	M	36	2	3	9	10	4	1	2	3	2
	F	12	0	1	3	1	3	0	0	2	2
	Tot.	48	2	4	12	11	7	1	2	5	4
	Rate	<b>1.7</b>	--	--	<b>2.6</b>	<b>2.3</b>	<b>2.0</b>	--	--	--	--
<i>Poisoning by solid or liquid substances (E950)</i>	M	14	0	1	4	6	2	1	0	0	0
	F	26	1	0	2	9	6	4	1	3	0
	Tot.	40	1	1	6	15	8	5	1	3	0
	Rate	<b>1.4</b>	--	--	<b>1.3</b>	<b>3.2</b>	<b>2.3</b>	<b>2.2</b>	--	--	<b>0.0</b>
<i>Poisoning by other gases &amp; vapors (E952)</i>	M	5	0	0	0	1	0	3	0	1	0
	F	3	0	0	0	1	1	0	1	0	0
	Tot.	8	0	0	0	2	1	3	1	1	0
	Rate	<b>0.3</b>	--	--	--	--	--	--	--	--	--
<i>Drowning (E954)</i>	M	2	0	0	0	2	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0
	Tot.	2	0	0	0	2	0	0	0	0	0
	Rate	--	--	--	--	--	--	--	--	--	--
<i>Cutting and piercing instrument (E956)</i>	M	1	1	0	0	0	0	0	0	0	0
	F	1	0	0	0	0	0	0	0	1	0
	Tot.	2	<b>1</b>	0	0	0	0	0	0	1	0
	Rate	--	--	--	--	--	--	--	--	--	--
<i>By other &amp; unspecified means (E958)</i>	M	5	0	0	1	2	1	0	0	1	0
	F	4	0	0	0	1	0	1	0	1	1
	Tot.	9	0	0	<b>1</b>	<b>3</b>	<b>1</b>	<b>1</b>	0	<b>2</b>	<b>1</b>
	Rate	<b>0.3</b>	--	--	--	--	--	--	--	--	--

-- Rates not calculated for deaths fewer than five

Age groups under 15 not shown as there were no suicides in these groups

## *Homicide and Legal Intervention*

*By method, age, and sex*

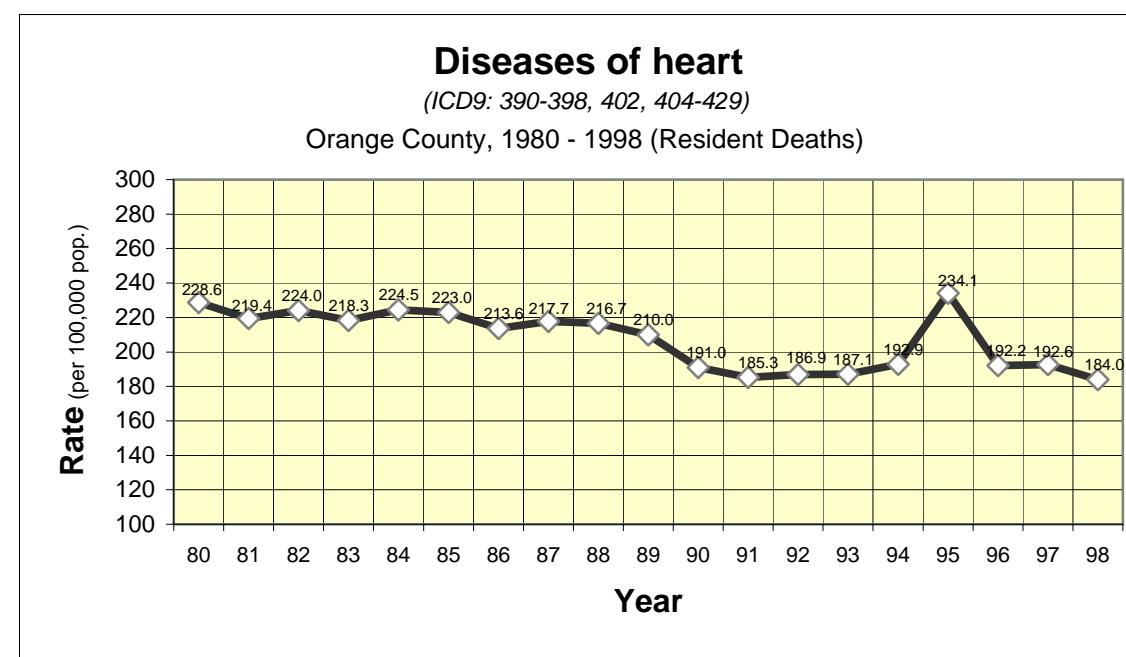
*Orange County - 1998 (Resident Deaths)*

	Age Group																									
	All		<1		1-4		10-14		15-19		20-24		25-34		35-44		45-54		55-64		65-74		75-84		85+	
Method	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
<i>Firearms and Explosives (E965)</i>	45	10	1	0	0	0	1	0	16	1	12	3	10	4	4	1	1	1	0	0	0	0	0	0	0	0
<i>Cutting and piercing instrument (E966)</i>	9	4	0	0	0	0	0	0	2	0	1	2	1	0	1	1	1	1	3	0	0	0	0	0	0	0
<i>Other &amp; unspecified means (E968)</i>	8	5	0	0	2	1	0	0	0	0	1	0	1	1	1	1	1	1	0	1	0	0	2	0	0	0
<i>Legal intervention by firearms (E970)</i>	8	0	0	0	0	0	0	0	1	0	2	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Hanging and strangulation (E963)</i>	2	1	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Late effects of legal intervention (E977)</i>	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
<i>Child battering &amp; oth. maltreatment (E967)</i>	0	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	73	22	1	1	2	2	2	0	20	1	16	6	17	5	7	3	3	3	1	0	0	2	0	0	0	0

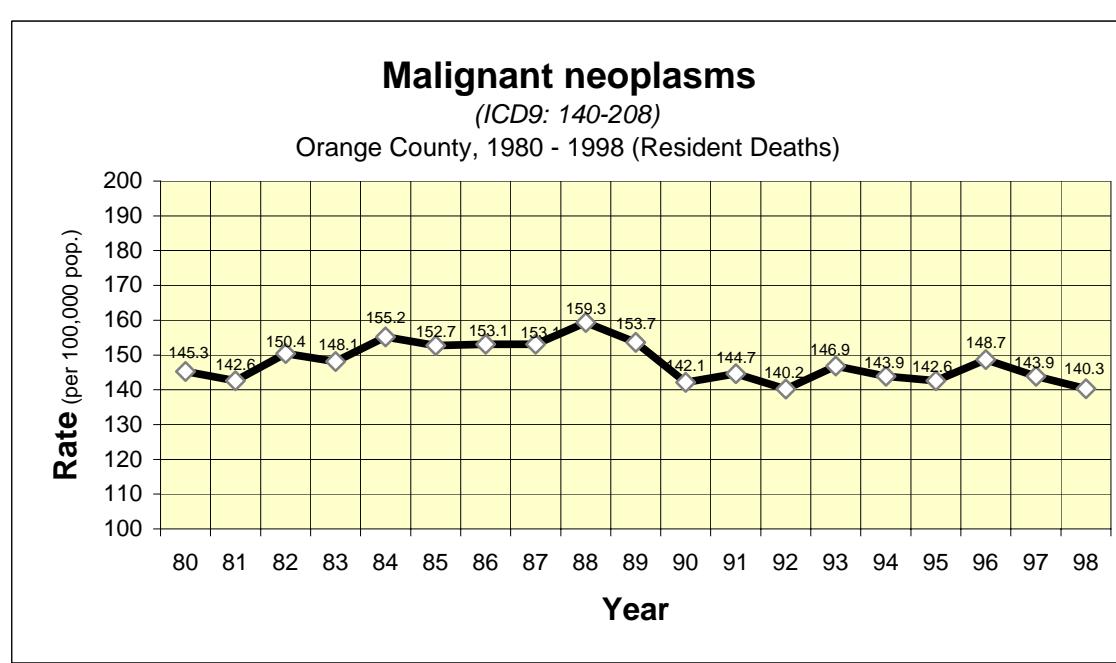
**Deaths Due to Firearm Injury**  
**Orange County, 1998 (Resident Deaths)**

	Total Deaths Caused by Firearm Injuries	Accident caused by firearm missile (E922)	Suicide by firearms (E955.0-E955.4)	Homicide & legal intervention by firearms (E965.0-E965.4, E970)	Undetermined if accidental or intentional (E985.0-E985.4)
All ages					
Male	145	4	88	52	1
Fem.	31	0	21	10	0
Total	176	4	109	62	1
Under 1					
Male	1	0	0	1	0
Fem.	0	0	0	0	0
Total	1	0	0	1	0
1 - 4					
Male	0	0	0	0	0
Fem.	0	0	0	0	0
Total	0	0	0	0	0
5 - 14					
Male	1	0	0	1	0
Fem.	0	0	0	0	0
Total	1	0	0	1	0
15 - 24					
Male	43	2	9	31	1
Fem.	6	0	2	4	0
Total	49	2	11	35	1
25 - 34					
Male	30	1	14	15	0
Fem.	8	0	4	4	0
Total	38	1	18	19	0
35 - 44					
Male	18	0	15	3	0
Fem.	6	0	5	1	0
Total	24	0	20	4	0
45 - 54					
Male	20	1	18	1	0
Fem.	4	0	3	1	0
Total	24	1	21	2	0
55 - 64					
Male	7	0	7	0	0
Fem.	2	0	2	0	0
Total	9	0	9	0	0
65 - 74					
Male	8	0	8	0	0
Fem.	5	0	5	0	0
Total	13	0	13	0	0
75 - 84					
Male	11	0	11	0	0
Fem.	0	0	0	0	0
Total	11	0	11	0	0
85+					
Male	6	0	6	0	0
Fem.	0	0	0	0	0
Total	6	0	6	0	0

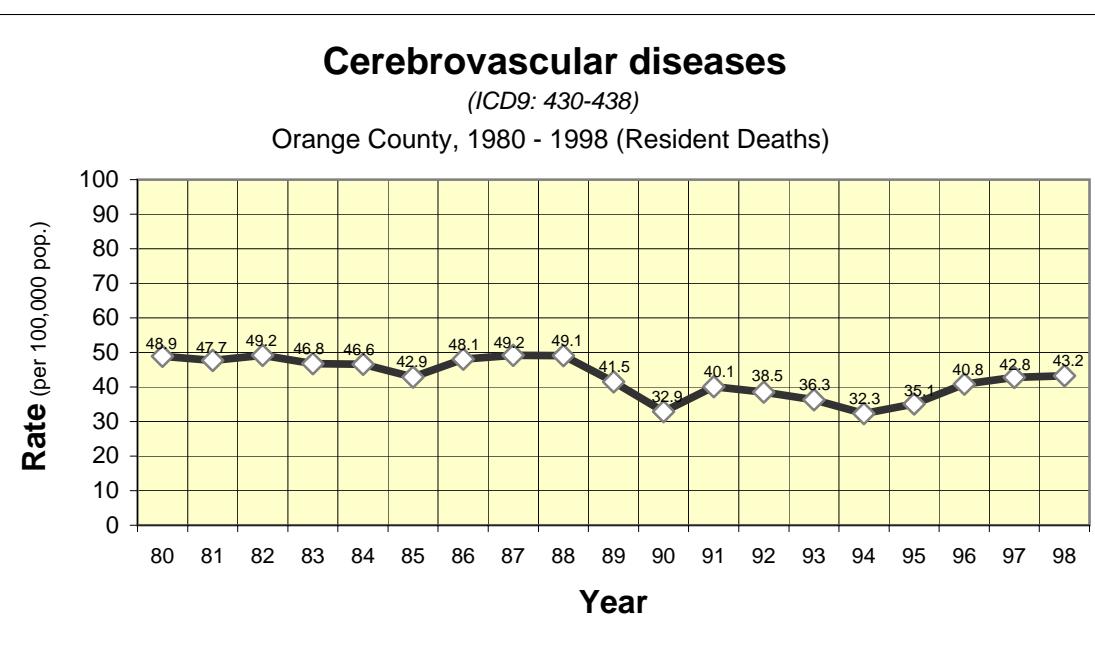
<b>Year</b>	<b>Rate</b>
80	228.6
81	219.4
82	224.0
83	218.3
84	224.5
85	223.0
86	213.6
87	217.7
88	216.7
89	210.0
90	191.0
91	185.3
92	186.9
93	187.1
94	192.9
95	234.1
96	192.2
97	192.6
98	184.0



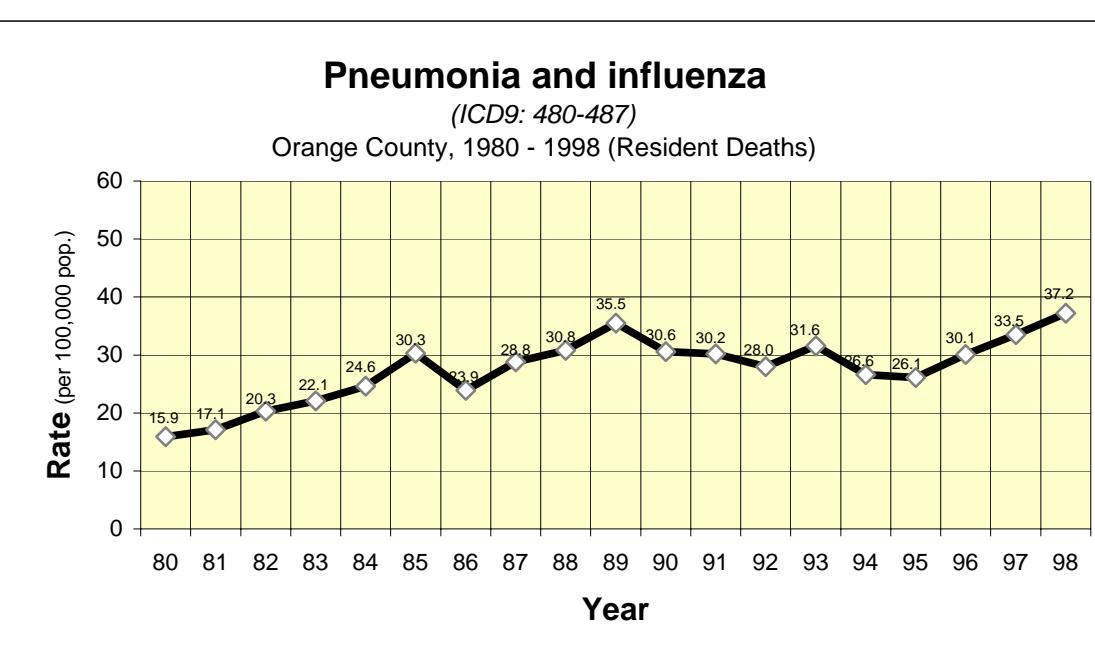
<b>Year</b>	<b>Rate</b>
80	145.3
81	142.6
82	150.4
83	148.1
84	155.2
85	152.7
86	153.1
87	153.1
88	159.3
89	153.7
90	142.1
91	144.7
92	140.2
93	146.9
94	143.9
95	142.6
96	148.7
97	143.9
98	140.3



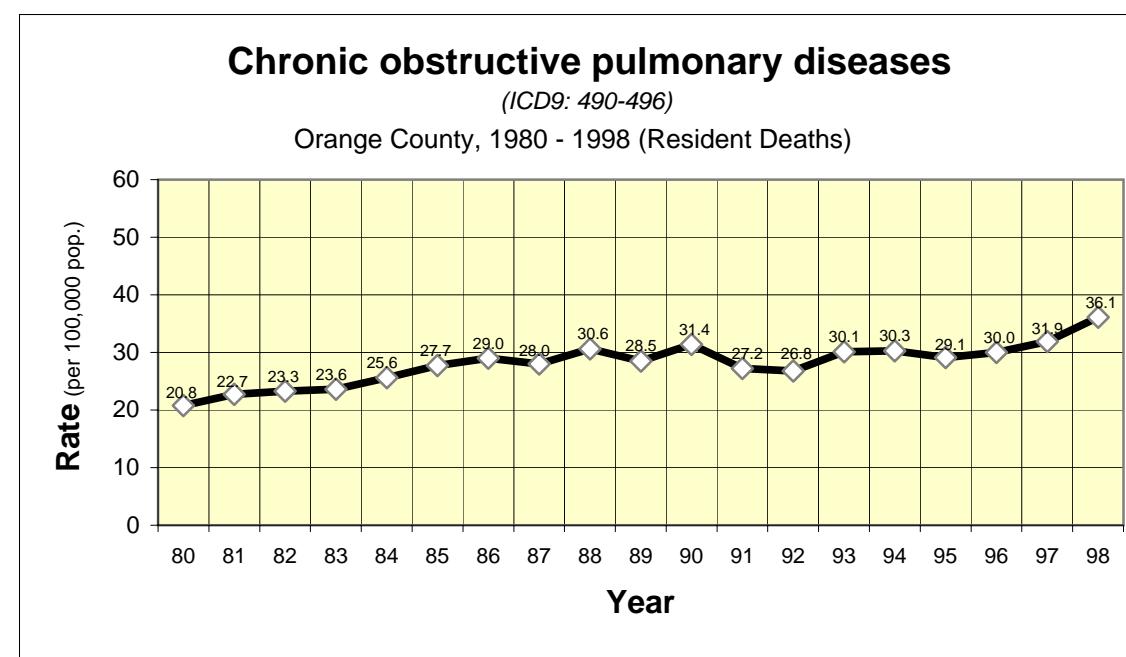
<b>Year</b>	<b>Rate</b>
80	<b>48.9</b>
81	<b>47.7</b>
82	<b>49.2</b>
83	<b>46.8</b>
84	<b>46.6</b>
85	<b>42.9</b>
86	<b>48.1</b>
87	<b>49.2</b>
88	<b>49.1</b>
89	<b>41.5</b>
90	<b>32.9</b>
91	<b>40.1</b>
92	<b>38.5</b>
93	<b>36.3</b>
94	<b>32.3</b>
95	<b>35.1</b>
96	<b>40.8</b>
97	<b>42.8</b>
98	<b>43.2</b>



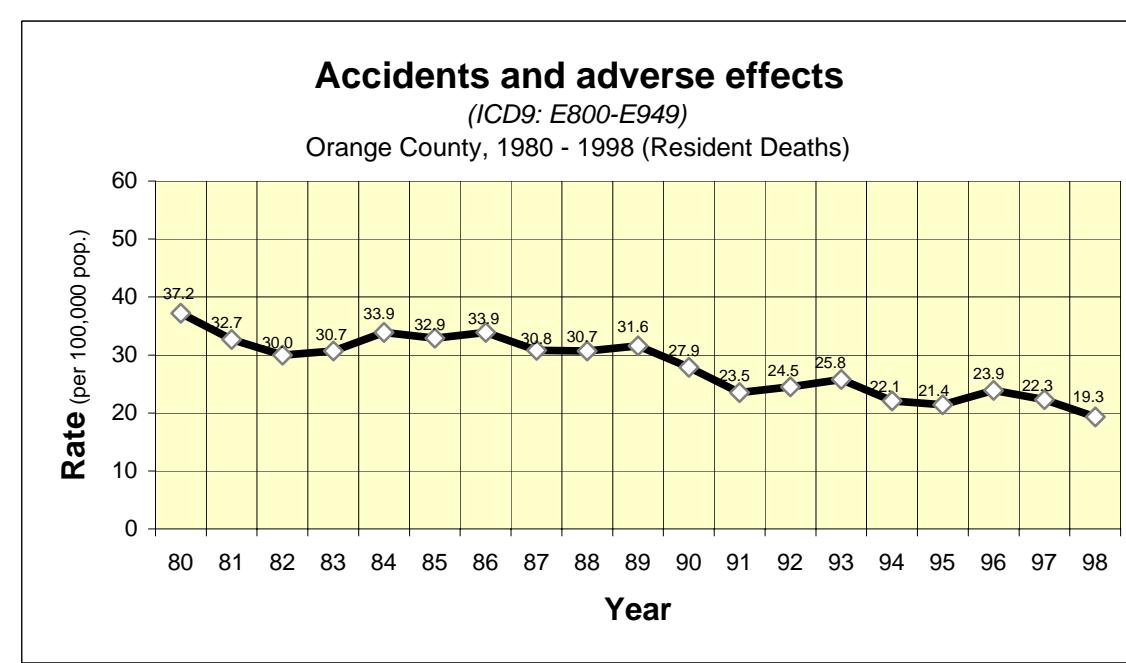
<b>Year</b>	<b>Rate</b>
80	<b>15.9</b>
81	<b>17.1</b>
82	<b>20.3</b>
83	<b>22.1</b>
84	<b>24.6</b>
85	<b>30.3</b>
86	<b>23.9</b>
87	<b>28.8</b>
88	<b>30.8</b>
89	<b>35.5</b>
90	<b>30.6</b>
91	<b>30.2</b>
92	<b>28.0</b>
93	<b>31.6</b>
94	<b>26.6</b>
95	<b>26.1</b>
96	<b>30.1</b>
97	<b>33.5</b>
98	<b>37.2</b>



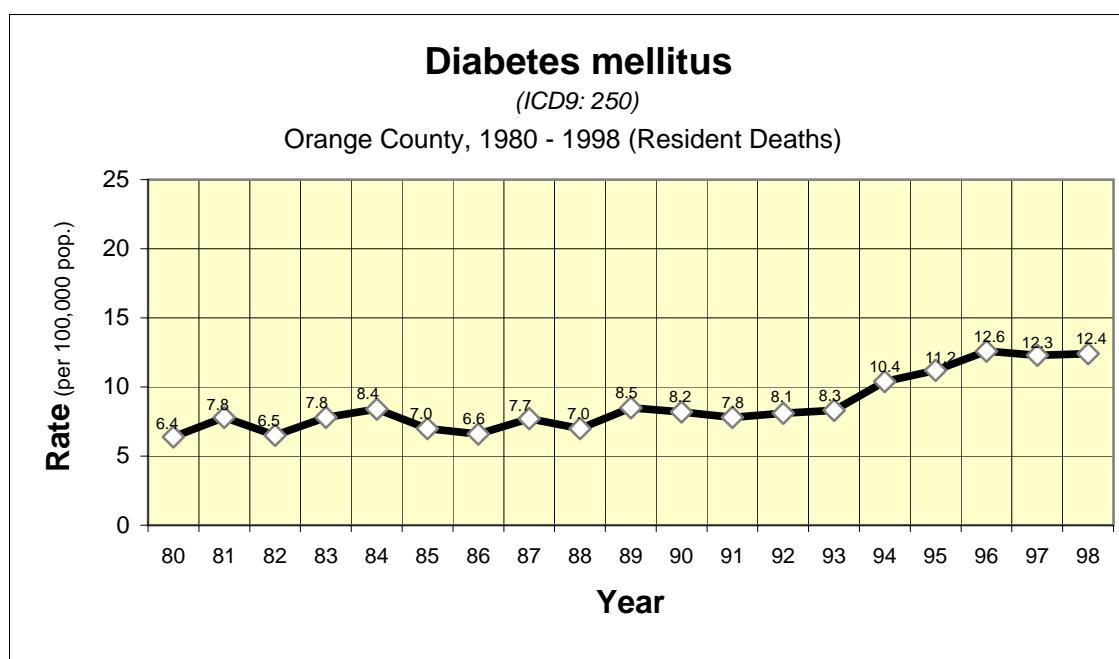
<b>Year</b>	<b>Rate</b>
80	20.8
81	22.7
82	23.3
83	23.6
84	25.6
85	27.7
86	29.0
87	28.0
88	30.6
89	28.5
90	31.4
91	27.2
92	26.8
93	30.1
94	30.3
95	29.1
96	30.0
97	31.9
98	36.1



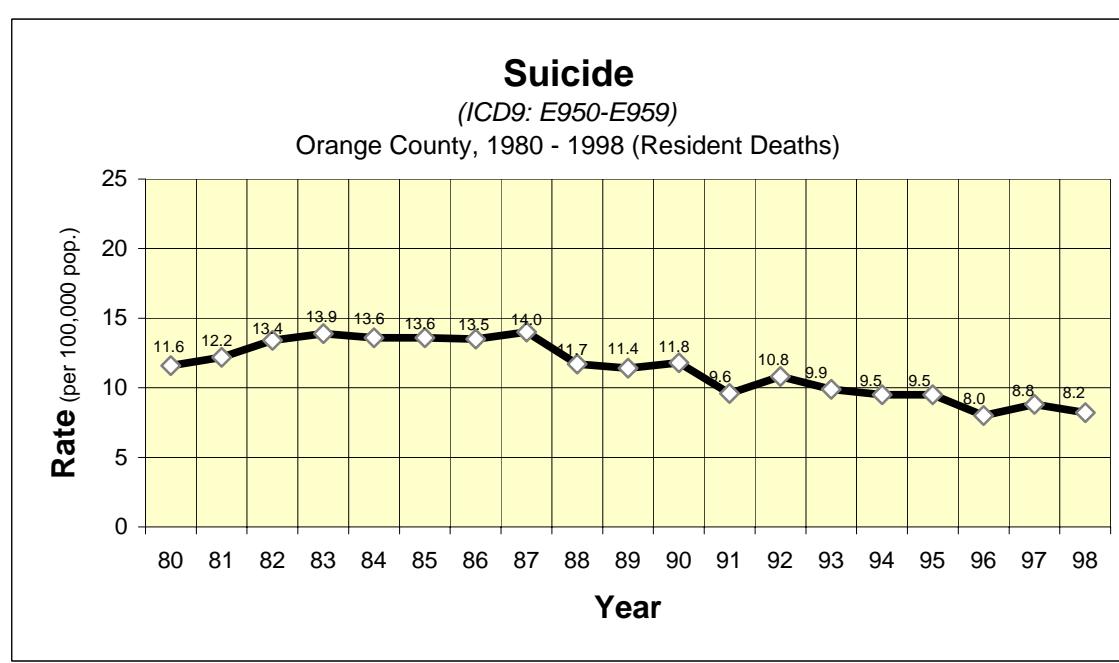
<b>Year</b>	<b>Rate</b>
80	37.2
81	32.7
82	30.0
83	30.7
84	33.9
85	32.9
86	33.9
87	30.8
88	30.7
89	31.6
90	27.9
91	23.5
92	24.5
93	25.8
94	22.1
95	21.4
96	23.9
97	22.3
98	19.3



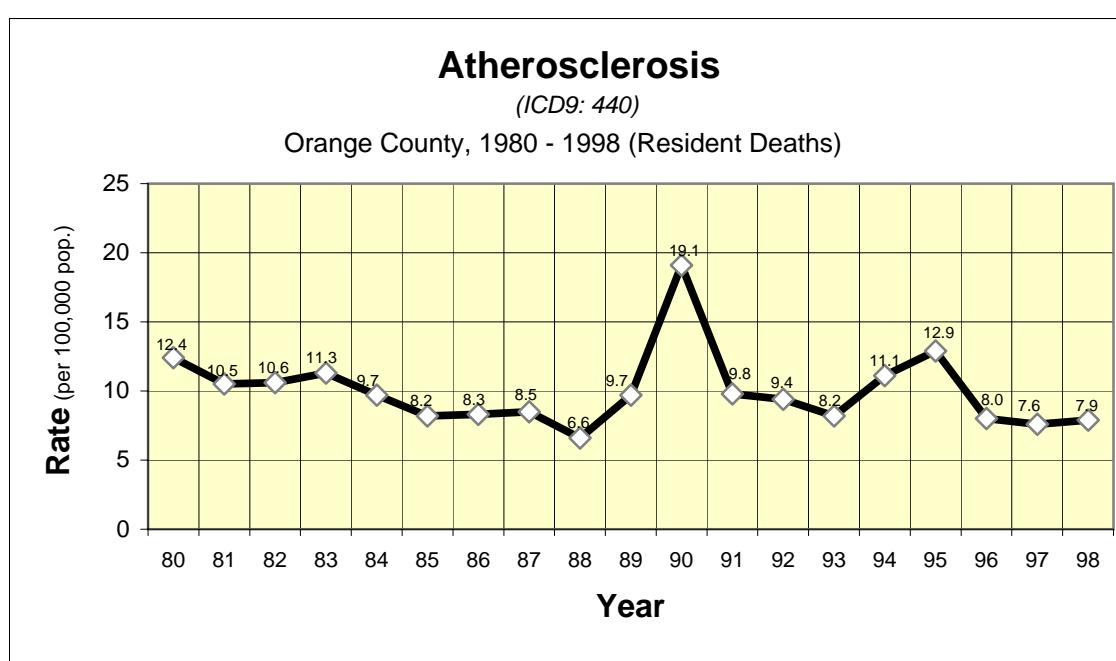
<b>Year</b>	<b>Rate</b>
80	6.4
81	7.8
82	6.5
83	7.8
84	8.4
85	7.0
86	6.6
87	7.7
88	7.0
89	8.5
90	8.2
91	7.8
92	8.1
93	8.3
94	10.4
95	11.2
96	12.6
97	12.3
98	12.4



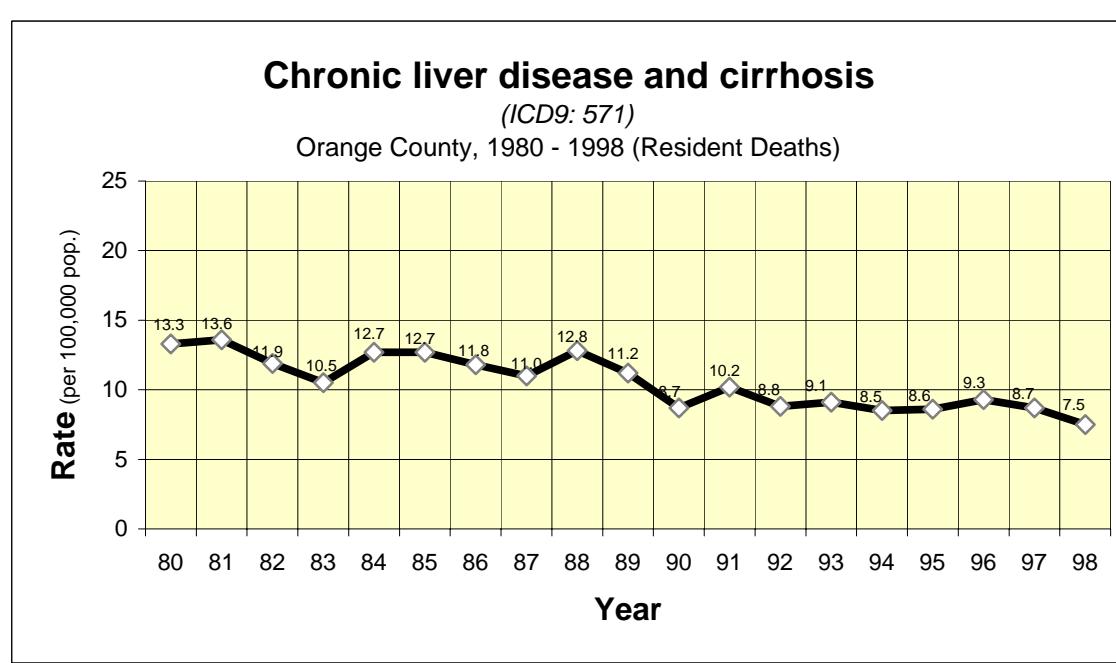
<b>Year</b>	<b>Rate</b>
80	11.6
81	12.2
82	13.4
83	13.9
84	13.6
85	13.6
86	13.5
87	14.0
88	11.7
89	11.4
90	11.8
91	9.6
92	10.8
93	9.9
94	9.5
95	9.5
96	8.0
97	8.8
98	8.2



<b>Year</b>	<b>Rate</b>
80	12.4
81	10.5
82	10.6
83	11.3
84	9.7
85	8.2
86	8.3
87	8.5
88	6.6
89	9.7
90	19.1
91	9.8
92	9.4
93	8.2
94	11.1
95	12.9
96	8.0
97	7.6
98	7.9



<b>Year</b>	<b>Rate</b>
80	13.3
81	13.6
82	11.9
83	10.5
84	12.7
85	12.7
86	11.8
87	11.0
88	12.8
89	11.2
90	8.7
91	10.2
92	8.8
93	9.1
94	8.5
95	8.6
96	9.3
97	8.7
98	7.5



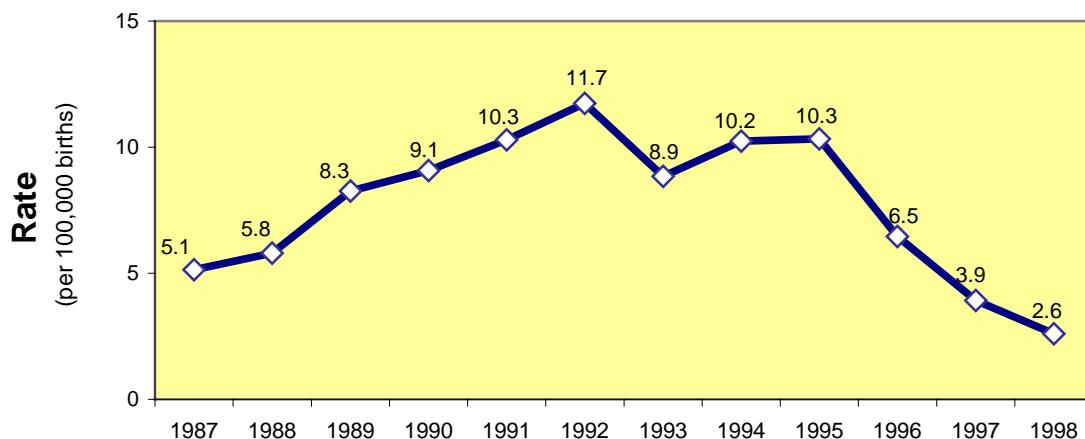
## Deaths due to HIV

Death rates due to HIV infection climbed steadily in the 1980s and the early 1990s. After peaking in 1992, the HIV death rate started a slow decline for the next three years. The decline in the HIV death rate was quite steep after 1995. This decline has been attributed to improved survival of persons infected with HIV due to development of new, more effective treatment. It is possible that a decrease in the incidence of HIV infection contributed to this decline in AIDS mortality; however, HIV incidence and prevalence data are not available. Reporting of HIV infection to Public Health would provide a clearer understanding of factors responsible for trends in mortality.

**Deaths due to HIV (ICD9: 042-044\*)**

<u>Year</u>	<u>Number of deaths</u>	<u>Rate per 100,000 population</u>
1987	114	5.1
1988	131	5.8
1989	190	8.3
1990	220	9.1
1991	255	10.3
1992	297	11.7
1993	228	8.9
1994	268	10.2
1995	270	10.3
1996	171	6.5
1997	105	3.9
1998	72	2.6

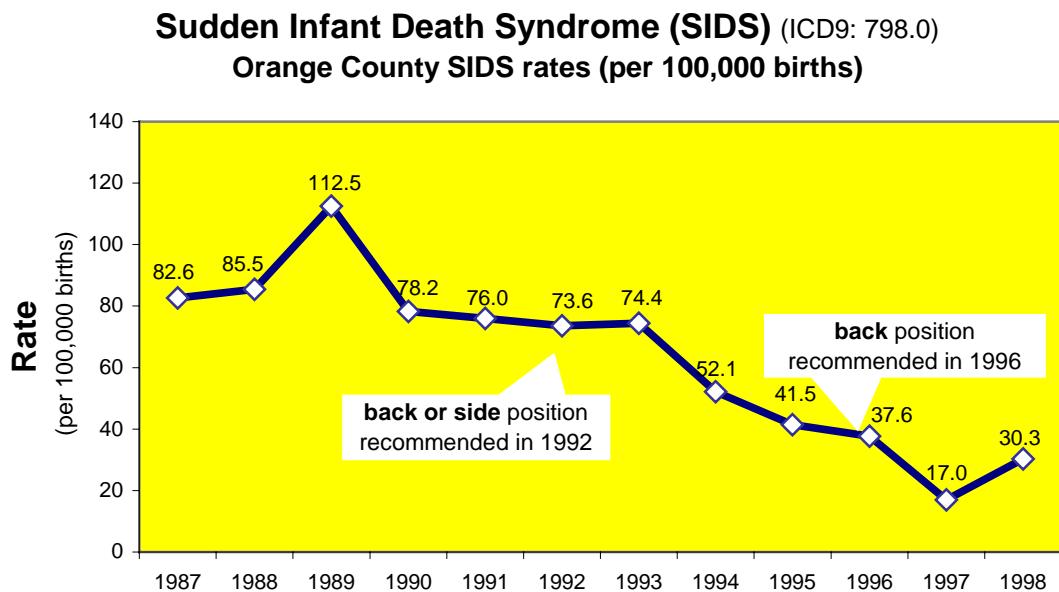
**Deaths due to HIV (ICD9: 042-044)  
Orange County, 1987-1998**



\* ICD9 codes 042-044 were first used in 1987

## Sudden Infant Death Syndrome

In the early 1990s, epidemiological studies of sudden infant death syndrome (SIDS) that focused on environmental risk factors identified prone sleeping position as an important risk factor. In 1992, the American Academy of Pediatrics Task Force on Infant Positioning and SIDS recommended that infants be placed either on their side or on their back for sleep. The task force revised its position in 1996 to recommend that infants sleep on their back. The recommendations were accompanied by educational campaigns designed for health professionals and parents. A Significant reduction in SIDS rates was observed in subsequent years nationwide. Data through 1997 showed a 56% decline in SIDS rates from 1992 to 1997 nationwide. A comparable 59% decline in SIDS rates was also observed in Orange County where SIDS declined from 72.6 per 100,000 births to 17 per 100,000 births in 1997. The graph below depicts SIDS rates from 1987 through 1998.



## **Cause-of-death ranking**

The cause-of-death ranking used here follows the ranking method found in the federal mortality report. It is based on the list of 72 selected causes of death, HIV infection and Alzheimer's disease. For infant deaths, the ranking of the causes of death is based on the list of 61 selected causes.

The group titles "*Major cardiovascular diseases*" and "*Symptoms, signs, and ill-defined conditions*" are not included in the ranking for tables based on the 72 selected causes of death. The group titles "*Certain conditions originating in the perinatal period*" and "*Symptoms, signs, and ill-defined conditions*" are not included in the ranking for tables using the list of 61 selected causes of death for infants.

In addition, group titles that begin with the words "other" and "all other" are not included in cause-of-death rankings. When a cause-of-death category includes several, more detailed causes, only the broader category is ranked; individual items under that category are not ranked. For example, the category "*Chronic obstructive pulmonary diseases and allied conditions*" includes bronchitis, emphysema, asthma, and other pulmonary diseases. In this case, only the broader category of chronic pulmonary diseases is ranked.

## **Computation of rates**

The rates used in various tables are per 100,000 population. In tables where causes of death are reported by either age group or by ethnic group, the rates are based on 100,000 population within specific age or ethnic groups. For example, cause-of-death rates for Latinos are based on the Latino population in Orange County.

Rates are not calculated where the number of deaths is fewer than five. Random variation in a given cause of death could produce misleadingly magnified variations in mortality rates when the number of deaths is very small.

### **Infant deaths**

The rate used for infants is the infant death rates. The infant death rate is:

(The number of deaths among children less than one year of age during the year) ÷ (The number of children aged less than one year in the population during the same year) x 100,000.

The more familiar measure, the infant mortality rate, is actually a ratio of the number of infant deaths divided by the number of live births during the year in question. Infant mortality rates are presented only for *Sudden infant death syndrome (SIDS)*. Other infant mortality rates are presented in the annual summary of natality data.

### **Age-adjusted rates vs. crude rates**

Age is a leading risk factor for many causes of death. When comparing populations, such as the Orange County population with the United States population, different racial/ethnic groups, or the same population at different time periods, differences in age structure can account for some, sometimes very large, differences in the unadjusted (crude) rates. Age adjustment, sometimes called age standardization, is performed in order to remove the effect of age from the comparison. An age-adjusted rate is a summary number representing a weighted average of age-specific rates. The weights for each age group are provided by use of a “standard” population. Age-adjusted rates present a summary measure for comparing two or more populations. The United States 1940 standard population figures have been used to generate the age-adjusted rates. Age-adjusted rates are fictitious; the absolute magnitude of the age-adjusted rates depends on the standard population that is chosen.

Beginning with the year 1999, the federal government will change from using the United States 1940 standard population to the year 2000 standard population. As a result, age-adjusted rates in this report cannot be used to compare to age-adjusted rates in future reports.

## **Race/ethnic categories**

The racial/ethnic categories used are:

- White
- Hispanic
- African American
- Southeast Asian
- Other Asian
- Other

However, in tables where rates are age-adjusted, the following categories are used:

- White
- Hispanic
- African American
- Asian & Pacific Islander (including Southeast Asians)
- Native American, Eskimo, and Aleut
- Other

The reason for using the second set of categories is that age-specific population estimates were available for these categories only (age-specific population figures are necessary for computing age-adjusted rates).

## **Quality of Cause of Death Data**

The number of causes of death reported as *Symptoms, signs, and ill-defined conditions (ICD9: 780-799)* may be a rough indication of the quality of the death certificate data. If the size of this category is very small, it might mean that sufficient effort has been made to determine the underlying cause of death, thereby obviating the need to use a “catch-all” category when the cause of death has not been definitively established or reported. There were only 53 cases where this category was used; this represents only .3% of the cases. By comparison, this category comprises 1.1% of the cases in the 1998 US mortality data.

**Appendix**  
**Population estimates**  
**Orange County, July 1998**

<b>Age</b>	<b>Total</b>	<b>White</b>	<b>Hispanic</b>	<b>Asian &amp; Pacific Isl.</b>	<b>African American</b>	<b>Native American</b>
<1	<b>46,549</b>	17,801	22,375	5,665	613	95
1-4	<b>197,005</b>	76,339	92,722	24,448	3,096	400
5-9	<b>241,620</b>	107,829	100,161	28,859	4,330	441
10-14	<b>181,595</b>	90,463	62,158	24,923	3,623	428
15-19	<b>166,019</b>	83,828	53,463	24,966	3,251	511
20-24	<b>160,856</b>	78,174	52,060	25,974	4,126	522
25-34	<b>460,100</b>	225,475	165,315	57,539	10,297	1,474
35-44	<b>472,098</b>	287,174	116,836	59,808	6,780	1,500
45-54	<b>350,926</b>	241,860	57,957	44,716	5,058	1,335
55-64	<b>224,085</b>	164,595	31,100	24,865	2,725	800
65-74	<b>151,674</b>	119,171	17,813	13,272	1,033	385
75-84	<b>83,614</b>	69,545	7,255	6,237	372	205
85+	<b>27,689</b>	23,453	2,539	1,522	102	73
<b>Total</b>	<b>2,763,830</b>	<b>1,585,707</b>	<b>781,754</b>	<b>342,794</b>	<b>45,406</b>	<b>8,169</b>

Source: State Department of Finance